

# SAILPLANE

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## AND GLIDER

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*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

Vol. 7 No. 5

MAY, 1936

Published Monthly

## Coming Events

### B.G.A. Competitions

**A**T a meeting of the council of the British Gliding Association, held at the Royal Aero Club on April 28th, after considering at length the question of the site to be chosen for the 1936 competitions, it was decided that they should be held this year on the ground of the Derbyshire and Lancashire Gliding Club at Bradwell Edge, from Saturday, August 29th, to Sunday, September 6th, inclusive.

The competitions will be held, as usual, under the competition rules of the B.G.A.; all competing machines must hold a current certificate of airworthiness, and third party insurance cover to a minimum sum of £1,000.

Two new requirements are:—

(1) Competitors' barographs must have been calibrated during 1936, and must have a correction chart or other similar document. (This service can now be offered at a low rate by the B.G.A., as mentioned in our last issue.)

(2) Competitors' licences will be marked with a telephone number. After any cross-country flight, the first duty of the pilot will be to communicate his whereabouts by 'phone to this number. Failure to comply with this regulation will involve automatic disqualification from further flying during the competitions.

### Gliding in Yorkshire

The Yorkshire Gliding Club is holding an Open Meeting with competitions at Whitsuntide, from Saturday, May 30th, to Tuesday, June 2nd, and another at August Bank Holiday time, from Saturday, August 1st, to Monday, August 3rd, inclusive. These meetings will, of course, take place at Sutton Bank.

The Club's Instruction Course, from August 2nd to 15th, inclusive, is open to all; particulars are obtainable from H. T. Blakeston, Aspen House, Driffield, Yorks.

### The German Competitions

The annual soaring competitions at the Wasserkuppe in the Rhön Mountains will be held from Sunday, August 16th, to Sunday, August 30th, being later than usual this year so as not to interfere with the Olympic Games.

We are informed that an inexpensive tour is being organised from England to visit the competitions,

staying on the actual site at one of the hotels on the mountain top. The following details have been arranged: Leave Victoria Station 2 p.m. on Saturday, August 22nd, return August 30th; cost of tour, including full board and journey there and back, £8 10s. Further particulars are obtainable from E. Arland, 8, Lower Regent Street, London, S.W.1.

### An Anglo-German Camp

The Anglo-German Circle is in the habit of organising camps in Germany for the promotion of friendships by personal contacts between young people of both nationalities, and this year, as an innovation, a gliding camp is to be held at one of the leading German gliding schools at Asslar, near Wetzlar on the Lahn. The numbers are limited to 20 English and 20 Germans (males) of ages between 17 and 28, at least half of whom should have some previous knowledge of gliding. Instruction of all grades, from primary to aero-towing, is provided. The camp is to be held from Saturday, June 28th, to Saturday, July 25th, and the cost, which covers living expenses, insurance and flying instruction, but not travel there and back, is £7 10s.

Particulars can be obtained from A. V. S. Lochhead, hon. secretary Anglo-German Circle, 1, Bloomsbury Square, London, W.C.1.

### The Gaisberg School

This gliding school near Salzburg is now in its third year, and a circular we have received from the school shows that the facilities have been further developed since we were there last June. The fleet now consists of: 8 ZÖGLING type, 4 FALKE, 2 GRUNAU BABY, and 1 RHÖNBUSSARD. A definite figure of six take-offs from the Gaisberg mountain is specified as included in the advanced course, and further flights may be obtained by extra payment. The agents for the school in this country are: Anglo-Continental Express Co., Ltd., 177, Regent Street, London, W.1.

### A Lecture to Attend

Professor D. Brunt, M.A., who, as well as being chairman of the B.G.A., is president of the Imperial College Gliding Club, and Professor of Meteorology at the college, is to give a lecture to the club on "The Meteorology of Gliding and Soaring Flight."

The lecture will be given at 5.15 p.m. on Tuesday, May 26th, at the City and Guilds Engineering College, Exhibition Road, South Kensington. The club secretary writes that visitors will be welcome.

## Correspondence

### Soaring in the West Country

SIR,

The West of England possesses a number of really first class sites for soaring, and it is hoped this summer to arrange an unofficial meeting for private owners who would like to explore a bit of new country.

It is suggested that the headquarters should be at a farm behind the hills which run between Salisbury and Shaftesbury. The district is worth spending a holiday in apart from any flying. Good flying can be done round these hills in most wind directions, and the N.W. to W. wind ridge has a beat of about seven miles, with a road and flat fields on the top, and very large fields below.

There are other sites within easy reach of this one which can also be used. Westbury, for example, has hills like Dunstable but much higher, and with acres of flat open space on the top. There is also a site at Mere for a dead-south wind with an enormous billiard-table field on the top for car-launching and landings.

Further afield in the south-west are the Cheddar hills, which rise 400 to 500 feet out of the wide Somersetshire plains, and over which some of the largest thermal clouds are often seen; they offer scope for the longest possible distance flights in this country.

Investigations in these districts have already been made, and provided sufficient support is forthcoming a further visit will be made to arrange final details.

It has been suggested that this meeting should take place probably during the first week in August for ten days; or a later week in August. The camp will be limited in size, to avoid upsetting landowners; so will anyone who may be interested please communicate with me as soon as possible, c/o The London Gliding Club, stating what dates would suit them best.

J. S. Fox.

### Sailplane Weights

SIR,

I did not expect to find the table of weights which I sent you treated by Mr. Wills in a flippant manner, as though it had been compiled by the "think of a number" method which he himself uses. He displays a naïve innocence of the subject in even *thinking* of the N.P.L. in the matter of weighing masses of 300 lbs. to about 3%, and he may be surprised to know that as a problem this has ceased to exist since about the time of the Pharaohs. A modern machine will easily weigh 300 lbs. to within 0.2%, and a spring balance in good condition will give weighings within 1 or 2%.

If it is still thought that the figures I gave are no more reliable than those to which we are accustomed, I shall be pleased to wager Mr. Wills a chastening sum as to their substantial accuracy. To be fair, I must point out that

- (a) I rarely bet except on certainties, and
- (b) I have a considerable professional experience in the art of weighing.

In conclusion I should like to say that the inaccuracies in Mr. Wills's article were not, as he suggests, entirely due to his very scrappy sources of information. When, for instance, did HJORDIS slim down to 310 lbs.?

The last figure that Mr. Wills gave me for this was 350 lbs. When was the span of the GRUNAU BABY expanded to 47 feet? Etc.

LLEWELLYN H. BARKER, M.A., A.M.I.Mech.E.,  
Chartered Mechanical Engineer.

[We understand that the figure given by Mr. Wills for the weight of the HJORDIS is 330 lbs., this being the manufacturer's figure for the present model which, besides being the first of its type, was built with a specially large fuselage for its large owners. There is reason to think, therefore, that in subsequent models the designer's estimate of 310 lbs. will be attained. The figure 47 feet for the span of the GRUNAU BABY is our own mistake, as we undertook to check Mr. Wills's table. The correct figure should be 13.5 metres, or 44.3 feet.—Ed.]

## London Gliding Club Dinner

The Third Annual Dinner, which we attended as a guest of the club after attending the Sixth Annual General Meeting as a member—both functions taking place on April 30th—was a representative gathering whose total flying hours (motorless) must have run well into four figures.

Captain Lamplugh confessed to having had some anxious moments since he last presided at such a gathering—especially in his rôle of insurer of the club's property, when someone rang him up during last September's gale with the information that "The London Gliding Club has blown away, and was last seen passing Cambridge at 150 miles an hour." However, he had, as the chairman said, treated the club very generously in the matter!

Major Petre, club chairman, referred to the very critical time when the club was threatened with the loss of its flying ground. If the club had come to an end then, he said, it would have been the finish of gliding in this country for some time to come, and it was only through the generous action of a member, Mr. Hardwick, coupled with a gift from Lord Wakefield which Captain Lamplugh was instrumental in obtaining, that the situation was saved. The gliding movement is no longer in such a precarious position, now that strong clubs have grown up in other parts of the country, a fact which was most welcome to the London Club.

Two cups were presented by the chairman: the David Dent Cup to Mr. Bergel for his flight to Hornchurch, and the Louis Desoutter Cup to Mr. Morland and Mr. Richardson for building and flying the WHITE WREN.

The club always looks to Mr. Seburt Humphries for an exposition of his philosophy of life—the recreational part of it, that is, with special reference to gliding. As he had lately gone sailing with the chairman in Chichester Harbour, it was to this that he compared soaring flight, saying that we were gradually passing over from the "picnic" stage to the time when there would be a professional ground staff to do the work, and, of course, our "Johnnie" Walker (ovation) and John Noble (another ovation).

(A photograph taken during the dinner (appears on page 83).)

## The Easter Meeting at Mam Tor

THE Derbyshire and Lancashire Gliding Club is to be congratulated on the success of its first big meeting, in spite of what were described, by those who under-estimated the club's capabilities, as "adverse conditions." Not once during the Easter holidays did the wind blow in a suitable direction for the home site; nevertheless enough spectacular flying

was done to give the pilots something to think about for a long time to come, and to establish a firm reputation for the club in the district it serves.

Mam Tor, 1,700 feet above sea level, is five miles north-west of the club's headquarters. It stands at the head of the Hope Valley, and from it a line of slopes extends south-east and then eastwards, providing lift in east winds and north winds respectively. Their tops are 800 or 900 feet above the valley, and, with the extensions from the other side of Mam Tor, the whole forms a horseshoe which collects the east winds and should tend to concentrate the lift at the head of the valley.

Flying from these sites was done by 12 different machines. One, the GOLDEN WREN, lives at the club; three were provided by Slingsby Sailplanes for various pilots, and the remaining eight were privately owned and brought by road, mostly from Dunstable. They were in such a hurry to get there that the police made a fine haul—or rather, a haul of fines—Wills got off with one of 10s. (without endorsement); other victims, within a short space of time along the same road, were Nicholson, Baker (second time in the week), and, we believe, one other, or even two.

In addition to Daily Prizes, there were two large money prizes, offered by Allied Newspapers on behalf of the Manchester *Daily Dispatch*, waiting to be won: £100 for a flight to Blackpool before the end of September, and £25 for a flight in a home-built machine. The first was not achieved, and the second was postponed for the present until such time as the club decides it is won.

### Friday, April 10th.

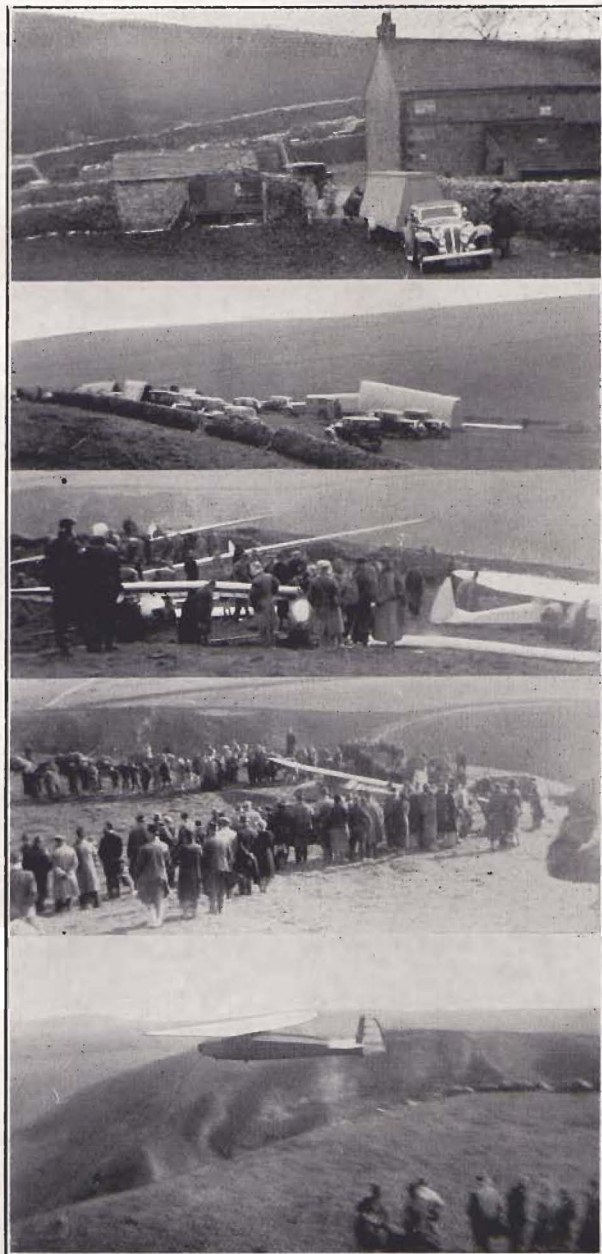
A strong north-easterly wind drove some of the pilots off to try their luck from Mam Tor—to be accurate, from an extension off its south side, overlooking the Blue John Mine—and the Daily Prize was therefore offered for the first flight from this site back to the club's headquarters at Camphill.

The HJORDIS was first to be rigged, and in it Wills was launched at 12.47 and went rapidly up to 1,000 feet in the strong lift. He explored the valley and its slopes and finally, having reached 2,000 ft., set off for Camphill and won the Daily Prize.

Nicholson in the RHÖNSPERBER had more difficulty in gaining height, but finally reached 2,000 ft. and also went to Camphill. Fox, in his SCUD II., was unable to soar at all, but Hiscox's KIRBY KITE, losing height at first owing to a poor launch, regained it at the "funnel" at the eastern end of the beat and ultimately got to 1,800 ft. He landed back at Mam Tor behind the launching ground, where the wind, as found by those who walked over the place, came from all directions at once.

Last was Richardson in the WHITE WREN. He got up to 800 feet and tried to reach Camphill, but as this involves crossing a valley, he couldn't make it, nor could he then get back to Mam Tor.

At Camphill, meanwhile, the public was being amused by flights off the winch cable. MacClement provided



Scenes at Mam Tor on Sunday, April 12th; showing how difficulties were surmounted. Trailers had to be brought many miles by road, hauled up a one-in-five hill and lifted bodily round awkward corners at the top. Sailplanes were rigged in the eddies behind the hill and launched into the eddies in front. The lower two pictures show W. "Bill" Liddell being launched in a "Grunau Baby"; the flight started well, but how it ended is described on a later page.

the Press with some good copy when he came in to land low down over the crowds; much to the Pressmen's astonishment he "gained" (not regained) control, but a reporter from a Yorkshire paper was so upset that he later referred to another machine as the "Kirby Tyke." In this, by the way, Neilan was once able to keep the air for ten minutes, presumably in thermal lift. The club's KIRBY KADET also had several winch launches, and was remarkable for the ease with which it was put down by all and sundry.

#### Flights on April 10th.

Pilot.	Aircraft.	Start.	Duration.
Wills	HJORDIS	12.47	1 h. 3 m.
Nicholson	RHÖNSPERBER	13.37	1 h. 28 m.
Fox	SCUD II.	14.23	4 m.
Hiscox	KIRBY KITE	14.36	1 h. 0 m.
Richardson	WHITE WREN	14.43	37 m.

Total flying time: 4 hrs. 12 mins.

#### Saturday, April 11th.

The wind this day had become more northerly, and moreover brought along a succession of snowstorms. In spite of this, a large number of pilots took part in the flying, which was mostly done from the Peveril slope on the south side of the Hope Valley, though two machines went again to Mam Tor, and in consequence had to wait for the launching rope before they could go off.

Buxton took the HJORDIS to 1,500 feet, circling in thermals and trying to put it into a spin without success. Finally he crossed over to Camphill and won the Daily Prize.

The rope was then taken to Mam Tor and Dewsbery was launched in the RHÖNSPERBER. After an initial struggle for height he got thermals to over 2,000 feet, and finished by returning to Mam Tor. Dent, who also went off Mam Tor, descended to the valley and

unfortunately picked on a field with a ditch running across it, into which he slid, bashing in the SCUD's nose. The Press described the incident as a "crash from 700 feet," that being the height of the launch above the landing.

At the Peverill slope G. O. Smith in the GOLDEN WREN rose quickly to 1,000 ft. and got across to Bradwell Edge, over which he soared at 2,000 ft. before descending at Camphill. Morland, in the WHITE WREN, made a well-judged, if spectacular, landing where he started from, after having survived several snowstorms at heights varying between 500 and 1,700 feet.

Hiscox rose quickly 500 feet and made straight for Bradwell Edge, losing height on the way and having to land on it. A rescue party of scouts launched him again, and his next landing was on the golf course at the foot.

In the CAMBRIDGE II. Rattray got over to Camphill, after a gain of 1,200 feet had all been lost in a temporary lull and then mostly regained when the breeze freshened. Baker, in his GRUNAU BABY, told his wife he would stay up half an hour and land at a specified spot in a certain field; his margin of error was seven minutes in time and 12½ yards in distance.

Finally, Nicholson, after a long wait for a launching party, made up for lost time by a remarkable high-speed flight from Mam Tor to Camphill in 14½ minutes; this included one-and-a-half beats along the starting slope during which he shot up 1,200 feet.

In between the landings at Camphill winch flights again amused the public there.

The day finished with a delightful party in the Marquis of Granby at Bamford, at which all the visiting pilots and their friends were the guests of the club. Any doubts that we had come to the wrong place were dispelled by the information that Lancashire Hot-pot had been ordered for 70 people. The dish was well



The assembled company at the "Marquis of Granby" on Saturday, April 11th, when the Derbyshire and Lancashire Gliding Club entertained their guests to supper and dancing.

[Photo by E. J. Furlong



A brace of "Cambridges": on the left, Mr. Slazenger leaves Mam Tor in the "Cambridge I" for Camphill; on the right, Mr. Furlong starts in the "Cambridge II," later to get mixed up with a snowstorm, from which he emerged intact and still flying.

suiting to appetites raised on the snowy Derbyshire hills. Gratitude was expressed to Mr. Sheppard, of the *Daily Dispatch*, for the part Allied Newspapers had played in the success of the meeting, to which he replied that he had found gliding men strange, but pleasant. Mr. Wills "voiced the whatnot" of all the visitors, and Mrs. Dugard Peach presented the two Daily Prizes to P. A. Wills and G. M. Buxton.

**Flights on April 11th.**

Pilot.	Aircraft.	Start.	Duration.
Buxton	HJORDIS	12.29	1 h. 10 m.
Dewsbery	RHÖNSPERBER	13.03	2 h. 7 m.
Dent	SCUD II.	13.12	3 m.
Smith	GOLDEN WREN	14.29	1 h. 15 m.
Morland	WHITE WREN	15.25	1 h. 55 m.
Hiscox	KIRBY KITE	15.54	7 m.
Hiscox	KIRBY KITE		8 m.
Ratray	CAMBRIDGE II.	16.45	1 h. 10 m.
Baker	GRUNAU BABY II.	16.52	37 m.
Nicholson	RHÖNSPERBER	17.30	14 m.

Total flying time: 8 hrs. 46 mins.

**Sunday, April 12th.**

This was the great day of the meeting, with hill lift in abundance, cloud lift all over the place, cold fronts, and adventures to suit all tastes. The wind had gone round again to E.N.E., so all the soaring was from Mam Tor, to which every available sailplane was taken.

Many pilots tried for cross-country flights, but few got very far. The Blackpool prize proved unattainable, not only because the place was a good deal north of down-wind, but because the thermal and cloud lift seemed curiously to diminish after the hilly Pennine district had been passed. It was suggested that this was caused as follows:—With a lapse rate of between three and five degrees per thousand feet, air is unstable in the clouds and stable outside them; the moist lower air is raised by the hills to the level at which cloud is formed, and it thereupon becomes unstable. It sounds a plausible theory, but is not altogether confirmed by the weather maps of that day.

Observations of low cloud at Spurn Head, 80 miles up wind, on this day show: At 7 a.m., sky half covered with cumulo-nimbus; at 13 hrs. (G.M.T.), half covered with large cumulus (or cumulo-nimbus) and strato-cumulus; at 18 hrs., same as 7 hrs. Down wind, at both Manchester and Sealand, the type "large cumulus (or cumulo-nimbus) and strato-cumulus" covered half or three-quarters of the sky at 7 hrs.,

13 hrs. and 18 hrs., with one exception, which is that Manchester at 18 hrs. reported "strato-cumulus formed by the spreading out of cumulus" covering half the sky. This last, at any rate, suggests that cumulus formation ceased once the air had left the high ground, but elsewhere there seems to have been as much active cloud over the plains as over the hills. One pilot reports: "Conditions were extraordinarily active, clouds occurring all over the sky both in 'streets' and in fronts." As seen from the ground, there did not seem to us to be very much in the way of "street" formation except as the result of haphazard arrangement. The fronts, or snowstorms, however, came over at intervals until a final big one, after which the weather deteriorated.

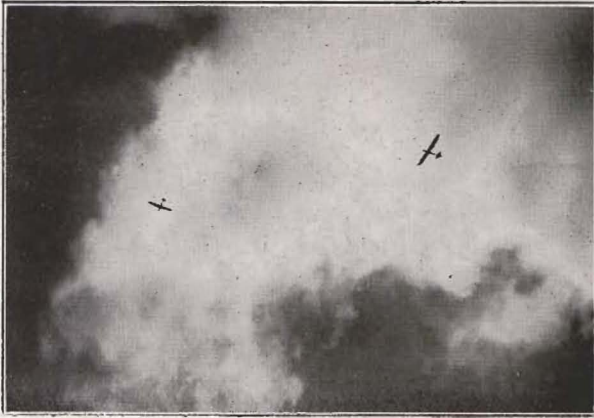
This storm, the big event of the day, was seen approaching from Sheffield direction about 3 o'clock. All the launches were made before it arrived; in fact, after it had gone over there was only one machine left on the top—the KIRBY KITE—which either Neilan or Sproule intended to fly, but didn't, as the wind had faded out.

Among the early starters was Bergel, in a KIRBY KITE. He had still the five hours' duration to do for his "Silver C," and thought the opportunity had come at last. But the snowstorms interfered, and he circumvented a particularly bad one and landed at Camphill. Slazenger, in the CAMBRIDGE I., did much the same thing, avoiding the big storm and reaching Camphill.

Furlong, who had never before flown anywhere but at Dunstable, performed a most meritorious flight in



Mam Tor from below: a view of the launching site above the Blue John Mine, photographed from the valley by E. J. Furlong, who must have wished it had remained as clear as this while he was in the air.



Chasing the cloud lift: H. L. Richardson in the "White Wren" and E. J. Furlong in the "Cambridge II."

the CAMBRIDGE II. He rode out several short snow-storms at heights between 500 and 1,200 ft., but when the biggest one of all came along, he got mixed up in it in a most unpleasant manner. The floor of the valley became obliterated and he tried to land on top, but he was too high to put down, and floated out through a gap into the valley. Mist descended on the hill-top and the air was filled with driving snow, but he got round in front of the launching point and, keeping it in view, just held his height till things became clearer and he could land below.

Liddell, who was launched in a GRUNAU BABY in full view of the approaching storm, was not so lucky. He got up rather high and was thus caught in the cloud, which meanwhile had descended on to the hill, so he had to fly completely blind and trust to luck that he wouldn't hit anything. At one moment a cliff loomed up, sped past his wing and vanished. Before long another extraneous object appeared—this time a sheep—a few feet in front of his nose. The next moment Liddell was on the ground; himself was intact, but not the GRUNAU.

Robertson, in the GOLDEN WREN, made a most astonishing high-speed dash down wind. In the course of barely 14 minutes he started from Mam Tor, entered a cloud almost at once, rose to 2,000 feet, came down again and landed at Peak Dale, six miles away. His

barograph record consists of three straight lines: one almost vertically upwards, then a short horizontal bit, then almost vertically downwards.

Hiscox started in his KIRBY KITE with the intention of getting to Woodford, the aerodrome south of Manchester, for a flight to which a prize had been offered. He flew in stormy conditions, and although he had Woodford in sight for quite a time, he had to put down short of it, landing at Lyme Park, Disley, after going about 10 miles.

In the RHÖNSPERBER Nicholson made a difficult cross-country flight which combined cloud and hill soaring. After getting away in front of a snowstorm he was let down, but managed to reach a good soaring slope at Hob Tor on Black Edge. Here he remained for a long time, waiting for more lift to come along. When the big storm approached he saw, far overhead, a sailplane going strong before it—evidently the WHITE WREN. In the end he got a good thermal which took him up to 1,600 ft. and on to Flash, between Leek and Buxton, 12 miles from the start. While landing there he was let down badly by the turbulent conditions; coming in over a stone wall, the RHÖNSPERBER seemed suddenly to lose all support; it just subsided and smashed its tail on the wall.

We have left the longest flights till last, as they can be described in fuller detail. These are: Wills, 27 miles in the HJORDIS; Richardson, 33 miles in the WHITE WREN (gaining the Daily Prize for height and distance).

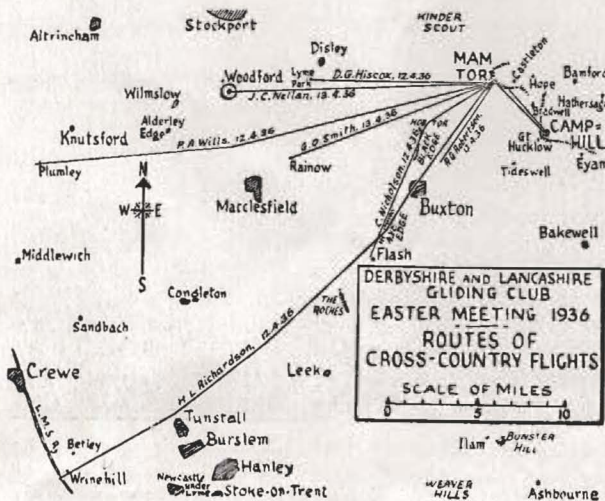
**Flight of the "Hjordis."**

Wills was launched at 1.22 p.m. and for about a quarter of an hour gained height steadily in mixed hill and thermal lift. Then a street of cloud came over, running east and west, under which it was snowing. This was the "front" used by Nicholson. Wills waited till it was about half over, then flew under its southern edge. He found rather broken lift up to 7 ft. per sec., and climbed to the cloud base at 2,200 ft. in intermittent snow. At this point he was exactly over the RHÖN-



The first launch of the meeting: P. A. Wills puts the ailerons hard over as a side gust hits the "Hjordis."

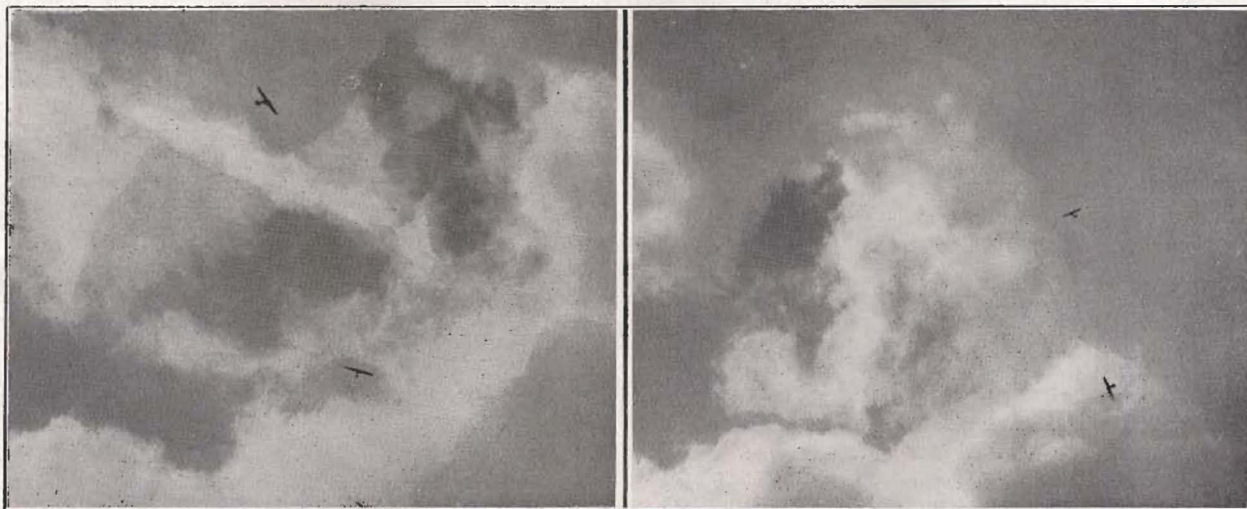
[Photo by G. L. Bell.



SPERBER, which was some 1,000 feet below, obviously in a down-current. It seemed as if the up-currents on this sort of day are due to instability in the air itself largely apart from ground influences, and consequently they do not extend downwards anywhere near ground level.

Wills switched on his blind flying instrument and steered a compass course northward into the cloud for a minute or two, then found lift and started circling. He found quite calm and steady lift of 5 to 7 ft. per sec. The snow got much thicker as he went up, and it occurred to him that in such an up-current it must be snowing upwards. Presumably at the level of balance





Circling under the clouds: two consecutive photographs. On the left, "Kirby Kite" and "White Wren"; on the right, "White Wren" and "Hjordis."

within the cloud there would be a layer into which the snow was "falling from both sides," and he wondered whether there would be a gentle bump as the top of his wing brushed into this ceiling.

The snow was so dry that it showed little tendency to stick to the celluloid cockpit cover, and when it did a tap from inside dislodged it instantly, and the enclosed cockpit seemed extremely warm and comfortable in comparison with the howling blizzard outside. The cold outside was, however, so intense that, in spite of good ventilation, condensation occurred on the inside of the celluloid and instantly froze, with the result that the pilot found himself blind-flying in the completest sense of the word.

At 4,000 ft. the snow was so heavy that he feared icing up of the wing or blocking of the pivot head of the air speed indicator, so stopped circling and, after considerable difficulty in finding the "S" on the compass, steered a compass course south in order to get out of the cloud. After two or three minutes' more flying blind, a thought struck him and he scratched a strip of ice off the interior of the cockpit cover, to find that he was actually out in clear air, 4,000 feet above his starting height, and some 5,000 feet directly over Macclesfield.

Having got his position and being in a mild down-current, he steered back into the wall of cloud from which he had just emerged and once more circled up to 4,000 ft. Then a westerly course brought him out over the edge of the Lancashire plain about six miles south of Woodford aerodrome.

Here he had to decide whether to make for Blackpool (which involved flying slightly into wind) or to land at Woodford, or to go down-wind for Wales.

He decided on the last, wrongly, as it proved. For the instability seemed confined to the atmosphere over the hills, and as he steered out over the plain he came down in a practically unbroken down-current. At 800 ft. the air grew extremely wild, and at 400 ft. he got caught in a violent down-current over a wood and forced down in a smallish field surrounded by trees. He side-slipped into a down-current coming over the

trees and his left wing went on firmly into the ground, thus putting an end to his flying holiday.

The landing was made at Plumley at about 2.35.

#### The "White Wren's" Flight.

Richardson started this flight at 1.15 p.m., finding that his WHITE WREN would rise to 1,000 feet over the head of the valley, but lost lift elsewhere; in fact, a cruise along the south side resulted in a loss of height to below the hill-top. But this was recovered, and the flight proceeded with an occasional circle in a thermal or cloud current. The pilot got very cold, and often flew "hands off" to give them a chance to warm up.

After nearly two hours of this a long and solid-looking bank of cumulus was seen approaching from over the moors to the north-east. This was the storm already described in which other pilots got so mixed up; Richardson, however, decided that the long-awaited opportunity had come for making his first cross-country flight, and he made an effort to get away in the rising air in front of it. Some preliminary small clouds came over, but did not provide enough lift to hitch on to. But shortly afterwards, as the big line of clouds



Mr. Alan Goodfellow, who acted as timekeeper throughout the meeting, "officially observes" the start of the "White Wren."

[Photo by G. L. Bell.]



The great "cold front" storm which carried H. L. Richardson 33 miles on April 12th, photographed as it approached from beyond the Hope Valley in the north-east.

approached, a patch of lift was found, and the WREN rose to the cloud base at 1,400 ft. (height above start).

Then, when it was too late to go back, the lift failed, but it soon returned, and the pilot circled up into the cloud and then proceeded to practise the art of circling into and out of the leading bulge of a pillar in the line of clouds, so as to get cloud lift without becoming lost.

Over Buxton height was being gained; Axe Edge then passed below. "Pillar circling," as already described, continued, with southerly glides from one bulge to another, to avoid getting too far ahead of the clouds. Here the "Brocken Spectre" effect could be seen—a shadow on the clouds with a halo round it. Below were rolling brown moors, with green patchwork country beyond. Meanwhile, height was gradually increasing to 2,800 feet.

By now he was getting away from the Pennines, and at the same time, while cruising from one "pillar" to another, he seemed to lose the one he was looking for, and on returning to the first, found himself below it without lift. It was evidently time to set off on a long glide down wind, as the storm appeared to be breaking up. Towns began to pass below; there were a few thermals about, but not enough to gain height.

So the glide continued into open country, and as the ground got nearer a good look-out was kept for high-tension wires. Sure enough there were some, just before a railway embankment, but beyond that was a perfect landing field. The WREN "scraped" over the wires comfortably and was turned into wind and put down.

The farmer, when found, "supposed it couldn't be helped as the machine hadn't got an engine," as if to imply that it mustn't occur again. But another local resident came along with an invitation to tea, soon transformed into an invitation to stay the night, which was accepted. But not before an effort had been made to get a message through to Camphill. As a telegram there wouldn't be delivered till next morning, one was sent to the *Daily Dispatch*, Sunday being a day of business with them, and they having a representative at the meeting. But for some reason it never got there, even next day, so there was much perturbation at the Marquis of Granby until news of the landing came through.

### Flights on April 12th.

Pilot.	Aircraft.	Start.	Duration.
Richardson	WHITE WREN	13.15	2 h. 45 m.
Wills	HJORDIS	13.22	1 h. 23 m.
Nicholson	RHÖNSPERBER	13.26	2 h. 29 m.
Bergel	KIRBY KITE	13.33	1 h. 0 m.
Furlong	CAMBRIDGE II.	13.55	2 h. 23 m.
Robertson	GOLDEN WREN	14.22	14 m.
Hiscox	KIRBY KITE	14.34	1 h. 45 m.
Baker	GRUNAU BABY II.	14.45	41 m.
Slazenger	CAMBRIDGE I.	15.05	50 m.
Liddell	GRUNAU BABY II.	15.21	44 m.

Total flying time: 14 hrs. 14 mins.



After the storm which provided so many thrills, the hills were covered in snow, the wind had gone, and the only remaining machine, a "Kirby Kite," was put away unflown.

Note the Scouts, a large party of whom came over from Manchester, camped on the site throughout the meeting, and gave willing help to all in need.

### Monday, April 13th.

The easterly wind was even fiercer than the day before; nevertheless Neilan and Smith decided to have a shot at the Woodford prize, while the Cambridge group did circuits at Camphill for the benefit of the public there.

Smith was launched from Mam Tor in the afternoon, in the GOLDEN WREN, between storms. He had an exciting time and got within sight of Woodford but couldn't reach it and put down at Rainow, near Macclesfield, 13 miles away. Neilan was launched later in a KIRBY KITE and succeeded in reaching Woodford aerodrome, 15 miles away; thus the prize was won at last.

### Flights on April 13th.

Pilot.	Aircraft.	Start.	Duration.
Smith	GOLDEN WREN	14.13	1 h. 18 m.
Neilan	KIRBY KITE	14.54	1 h. 55 m.

Total flying time, 3 hrs. 13 mins.

Flying time for whole meeting: 30 hrs. 24 mins.

The one pathetic feature of the meeting was the arrival each evening, from Matlock, of A. Lewis Slater, just too late to fly the GOLDEN WREN, in which he is a shareholder. Business had detained him in the shape of a garage. But on the following Sunday, April 19th, he took his revenge, and soared the GOLDEN WREN 73 miles from Camphill to within sight of the shores of the Wash. This fine flight is the longest yet made in a British sailplane, and on the following page Mr. Slater describes his experience.

## From Camphill to the Wash in the "Golden Wren"

**Sunday, April 19th.** Wind W.N.W., about 30 m.p.h. Altimeter reading, 1,200 ft. above sea level. Take off at 1 p.m. by winch to 200 ft., and a very uncomfortable two minutes after the release before getting into the hill lift, where the air smoothed out a bit.

Soon found something which rocketed me up to 2,000 ft. above start, and it was evident that thermals were about. It was very rough between whiles, but I became interested in watching a DAGLING land and take off again. Dreadful sinking hereabouts down to 400 ft. Humiliated to find a DAGLING well above me at about 800 ft. (pilot no doubt chortling with glee).

Changed position on hill to the Bradwell end and was soon up to 1,500 ft., came back over Camphill, and at about 1.45 p.m. connected with a beauty which shot the variometer up to about 18 to 20 ft. per sec. Many hearty circles, and altimeter soon read over 4,000 ft. When I looked again for Bradwell Edge it was in the dim distance, about 10 miles up wind.

Chesterfield was below me, with its crooked spire and large gasometer, and above me a nice cloud street. Could I turn this gift of the gods down? I ask you!

Proceeded down wind, sinking slowly, but soon found another thermal and was up to cloud base in no time; higher than ever now and in wispy cloud. Still proceeding down wind with an occasional circle, noticed that Nottinghamshire is a very wooded county. Crossed the river Trent, shining like silver, almost at right angles. Making distance rapidly. Later—still at cloud base but altitude much lower (possibly due to the geographical profile). About 3,000 ft. over Grantham (one square tower, one large spire and aerodrome on hill). Saw the coast in the distance and turned south; later, lost the coast and turned east; found the coast again, nearer now, and turned south again.

I had been getting lift in patches all the way till now, when I lost it and gradually sank from 2,500 ft. (above sea level) over ground which caused me no worry with regard to landing. As far as the eye could see large flat fields with low hedges or small dykes; very comforting.

When down to about 600 ft. I was tempted to throw a couple of circles by a teaser which took me up 100—150 ft. and left me flat. One and a half miles further down wind I turned into a field and landed at Gosberton Clough, with a cross road, telephone box, and a garage all handy; and last, but not least, most hospitable people to welcome me. Time, 3.17 p.m. Distance, about 73 miles. Maximum height, about 4,500 ft. above start (subject to confirmation).

A. L. SLATER.

## Other Cross-Country Flights

In the Club News section of this issue further cross-country flights are recorded. P. M. Watt, an Instructor to the Auxiliary Air Force at Thornaby, soared 42 miles from Sutton Bank to Brough on April 22nd in a GRUNAU BABY—a remarkable achievement for a pilot with hardly any soaring experience. D. G. Hiscox in his KIRBY KITE, and L. H. Barker in his SCUD II., both flew from Dunstable to Hatfield Aerodrome, 14½ miles, on April 19th. And Frank Charles has, in his KIRBY KITE, once more flown the six miles from the Furness Club's site to his home at Roose, this time landing all in one piece.

A cross-country flight in the GOLDEN WREN by G. O. Smith was inadvertently omitted from the list of such flights given in our last issue, page 54. Starting from Bradwell Edge on July 21st last year, he got up to 3,600 ft. after travelling four miles down wind, and landed in the grounds of Mount St. Mary's R.C. College at Spinkhill, near Stavely, 17 miles east of the starting point.



The London Gliding Club's Annual Dinner was held at the Victoria Mansions Restaurant. Captain Lamplugh, President of the Club, is seen standing at the head table; on his left, Major Petre (Chairman); on his right, Mr. Humphries (Club Captain). Standing on the left is Mr. H. O. Davies (Hon. Secretary).

## News from the Clubs

### Yorkshire Gliding Club

**March 17th.**—A soaring wind brought Slingsby from Kirby-moorside, together with his FALCON III. and a new KIRBY KITE.

The FALCON III. was the first in the air, piloted by Slingsby and Snellon, who found some mild thermals and reached 1,500 feet. Sproule quickly followed them into the air to give the KIRBY KITE its soaring baptism, lasting an hour and a half. After half an hour the FALCON III. landed, and Miss Herron-Maxwell took Snellon's place for an hour's dual. When Sproule landed after his test flight, Snellon took the KITE up for half an hour, and later Holdsworth had 15 minutes' flying in this machine before dusk put an end to operations.

**March 20th.**—HJORDIS completed her period of hibernation and appeared together with Buxton for a soaring test, of which we regret we have no details.

**March 22nd.**—Wind S.E., 20 m.p.h., decreasing. Alderson was the first on the list for HOLS so he was duly sent off for a circuit. He failed to climb sufficiently, cast off too soon, left his turn into wind too late, and departed for the bottom with the throttle wide open. Fisher and Woolcock, a new member, received instruction on DAGLING, and later on HOLS, Woolcock qualifying for his "A," and Fisher making attempts up to 27 seconds on his.

**March 30th.**—Slingsby and Watt took the FALCON III. for a short flight. After the launch they made bags of height on the beat to the road, but a line squall came along, and in spite of every effort the machine proceeded to fly backwards along the road, eventually landing most unorthodoxly.

**April 5th.**—Wind N. Neilan, back from the wilds of Scotland, took HOLS I. up for a circuit and showed the trainees how it should be done. Lingford showed that the lesson had not been wasted. Fisher then made attempts on his "A" on this machine, but although his times were up to 32 seconds his landings were not normal. However, HOLS survived and was later circuted by Woolcock and Dr. Neilan, who each procured a "B."

To close the proceedings Jowett landed in a pond in HOLS, and remained marooned there until someone fetched a pair of rubber boots.

We are very glad to welcome Neilan back to the fold and are hoping he will do great things during the coming summer. After all, if he can soar a "Flea" from 500 ft. (its apparent ceiling) to 1,500 ft. with the aid of cloud currents, there's no knowing what the man can do in a KITE.

Easter was spent in spring-cleaning the club house. All inside walls were repainted, a new chimney was fixed, and several tons of dust were taken out of the carpets and put back on to the moor.

### Thermal Flying.

**April 18th.**—A north-westerly wind of moderate strength lured members to the bank early in the afternoon. Holdsworth was first in the air in our new GRUNAU BABY, and in a flight lasting an hour and a half reached 1,400 ft. with thermal aid. He was rapidly joined in the air by Wordsworth in FALCON, who also made use of the thermals, reaching 1,100 ft. in his half-hour flight. Sharpe replaced Wordsworth in FALCON and went one better in the way of height, touching 1,400 ft. Neilan and Sproule took up the GRUNAU for half an hour each, but Hastwell, rather than risk missing his turn on it, took FALCON up for 15 minutes before dusk made him come in.

Total flying time 3 hours 40 minutes.

**April 19th.**—Wind N.W., 25-35 m.p.h., decreasing later. So much was done to-day that an individual account of each flight has proved impossible. The outstanding performances of the day were Stedman's flight, with a passenger, in his CITY OF LEEDS through a hailstorm in which he reached 1,800 ft. and nearly came out on top of the hail; Wordsworth's flight in FALCON in which he did figures of eight to reach 1,500 ft. and regularly beat the GRUNAU for height; and Dr. Neilan's qualifying flight for his "C," in which he "took HOLS into the stratosphere" (other estimates put his height at between 600 and 700 ft.). The total time in the air for the day was 9½ hours.

GRUNAU BABY was first in the air at 9.45 a.m. and was piloted throughout the day by Holdsworth, Hastwell, Sproule, Sharpe (who each had two flights in her), Neilan, Heath, and Pick. Maximum height believed to have been obtained by Sproule at 1,600 ft., but this may have been exceeded later in the day. Total time in the air, 5 hours 50 minutes.

FALCON was taken up by Wordsworth in the morning for 1 hour 20 minutes, during which he played about with thermals and touched 1,500 ft. Unfortunately he hit a heather-hidden bump on landing and damaged the rear spar.

CITY OF LEEDS. Stedman brought his two-seater out of hibernation, and after dusting her and doing a few minor repairs proceeded to give dual instruction in half-hour spasms. Whilst Woolcock was his passenger he did his stuff in the hailstorm. Total flying time just under two hours.

HOLS I. was brought out at the end of the day when the wind had moderated. Woolcock and Dr. Neilan both qualified for their "C" certificates and short flights were also made by Watson, Blakeston, and Miss Horsley. Total flying time, 45 minutes.

### A "Silver C."

**April 22nd.**—Wind N.W. to N., 25 m.p.h. Neilan was launched by Holdsworth in GRUNAU, but the beat was very short, and after 1 hour 15 minutes he came in. Later in the day some good clouds came along, so he was launched again, but the up-currents were too small to be of much use.

P. M. Watt arrived from Thornaby and was launched in GRUNAU complete with sealed barograph "just in case." He manoeuvred about at 200-600 ft. for a couple of hours and then circled up to 5,000 ft. and a bit, and departed down-wind along a cloud street. He went due south as far as Strensall, by which time he had lost 1,000 ft. However, he recovered it in a thermal, and commenced to fly in a south-easterly direction heading for Brough. He kept his height at 5,000 ft. or over until 15 miles short of Brough, where the lift seemed to disappear. He reached Brough with 1,500 ft. in hand, touring over the Humber in order to lose height, and finally landing at Brough Aerodrome at 6.40 p.m. after three hours in the air, having covered a distance of 42 miles. This was his second soaring flight since he qualified for his "C" last August Bank Holiday.

### A "Kite" Looped.

**April 24th.**—Wind S.W., 20 m.p.h. Frank Charles arrived towing his repaired KITE fuselage, which he had collected from Slingsby's. He launched Neilan in the KITE, who reached 3,600 ft. and did his first loops in a sailplane. Neilan also tested the KITE for spinning, but it would only do a slow steep spiral for about two turns and then flatten out.

Meanwhile Watt had arrived and gone up in GRUNAU to do his five hours' duration, the last half hour of which was done on the point over Gormire in a S.S.E. wind.

Shortly after 6 p.m. Sproule went up in the KITE and reached 900 ft., from which height he did his first loop. He landed after an hour.

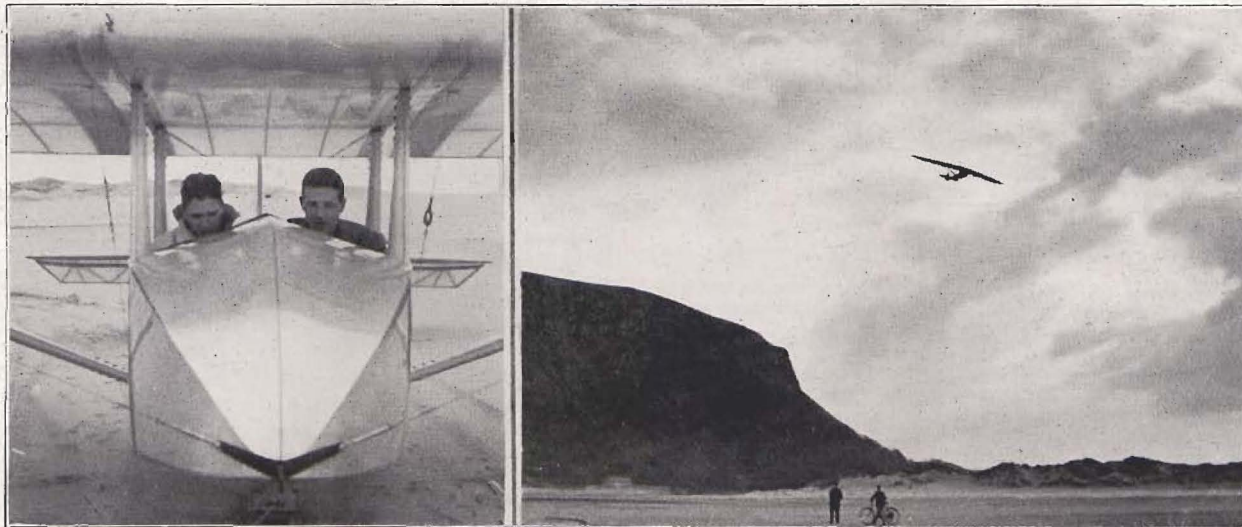
Last year the club produced a pilot, J. C. Neilan, who obtained his "Silver C" within six months of obtaining his "A" certificate. This year we repeat the dose with the aid of P. M. Watt, whose soaring flights to date can be counted on the fingers of one hand!

### Ulster Gliding Club

#### Storm Flight to Coleraine.

**February 2nd.**—Wind north, 20 m.p.h. Sky covered by high clouds. Tide too full for beach launch and too far north for Eagle Hill. After much waste of time trying to decide what to do and dodging storms, carried parts of GRUNAU over excellent steeplechase country and finally launched Liddell by bungy at 4.20 p.m.

Storm approached over sea bringing snow. Hill lift only 900 ft. above launch, which was peculiar considering the strength of the wind, but lull may have come before the storm. He went out over the sea to meet the storm, which was about four miles distant, and immediately started to rise. Circled to 1,200 ft. and then flew well back behind Umbra to test the extent of the lift. It was cloud lift and he decided to fly over the Castlerock landing field in case the lift failed or snow approached too quickly. Circled over Castlerock and reached 2,600 ft. over Articlave 2½ miles back. Returned to Castlerock and lost height for some reason, but by flying back and forth across the storm gained again to 2,500 ft. Flew along Downhill-Coleraine road, which was rather east of the line of storm. Lift was everywhere, but



The Ulster Club's newly-acquired "Falcon III" two-seater arrived just in time for the Easter Holidays. On the left, H. C. Wynne and N. P. Metcalfe are seen about to start for a flight.

[Photo by C. A. Beck.]

he gradually lost height off the edge of the "lift" section. Circled and found himself drifting west and south of Coleraine, so picked out what he thought was the main road and spotted a field alongside, where car and trailer would pass. He had the satisfaction of flying over the north end of Coleraine at 1,000 ft. A rapid descent in gathering dusk was culminated by a slip into field over road in a very vicious down current. He says he was glad it wasn't the KASSEL 25. Machine dismantled by torch light. Distance, 6½ miles. Time, 35 minutes.

During the afternoon storms had been coming over approximately every hour. As day temperature dropped, rain turned to hail, and then hail to snow. It is assumed, therefore, that there is as much lift before a rainstorm as before hail or snow. It is the pilot's belief that the best lift at a little above ground level is four miles before the storm; as the storm approaches, the area of lift gets higher. This is confirmed by gulls soaring inland in winter four miles before a storm. It is interesting to relate that on the 60-mile drive home at night, the road was covered with snow the whole way, so there is food for speculation as to where the flight would have ended had the launch been made earlier.

**February 23rd.**—Conditions similar to those on February 2nd, but clouds very low and high moors and Binevenagh were enshrouded. Storms everywhere, it being necessary to fly to Castle-rock to dodge one which went down Foyle, then to Eagle Hill to dodge one which went over Downhill. Launch had been off Umbra, and one of a scratch launching crew nearly went over the edge, not knowing that the machine had already gone over his head, and great was his amazement, when looking round for the pursuing beast, to find that it had literally disappeared into thin air. It was necessary to fly at 50 m.p.h. to keep below clouds. Finally an enormous hailstorm spread its curtain over the sea and the lift was terrific. In a very red setting sun the machine was flown down to the beach. By this time the pilot's hands were completely numb, for flying in an open cockpit into an advancing hailstorm at high speed is no joke. A sole human helped turn a wing into wind and then the two lay under the wing and held the strut down for dear life while the hail made curry of the beach. (Pilot: Liddell.)

Flying time, 35 minutes.

### The New Two-seater.

**Saturday, April 11th.**—Little guessing of the heart-rending (machine ditto) heroics being enacted in Derbyshire, we at last gave our FALCON III. her baptism of Magilligan air. A 10 m.p.h. north-east breeze enabled one to potter about the Downhill ridge at varying heights of 800 to 1,500 ft. in nice sunny weather.

Everyone is delighted with this machine, and we have evidence already that many new members are on their way to join us because of it. Whether or not this method of training is going to be successful remains to be seen, but we are very optimistic about it. We intend to give dual instruction at heights which do not tend to make the instructor short tempered by beginners' lapses from the correct attitude, and it is amazing how quickly the pupils get the hang of it. Once the instructors have got

over the "newfangled" feeling and really get down to training as opposed to enjoying themselves at the pupils' expense, things should go smoothly, and with KASSEL 20 waiting for the more proficient for first solos there should be lots of fun also.

The efficiency of this FALCON III. is truly amazing considering her bulk. True to type, she more or less flies herself. A certain progressive heaviness on the ailerons makes a lot of 'stick' quite a job of work, but there is no question of their (the ailerons) efficiency. One believes that their area has been quite noticeably increased since the first machine was built. The rudder might, with benefit, be increased in area, but is nevertheless quite effective for such a large span. Gentle slips only are possible, but like all FALCONS excessive speed is never gained by pushing her down.

Altogether she is a wonderful machine with immense possibilities in her for the furtherance and popularising of the movement. Flying time, 3½ hours.

**Monday, April 13th.**—A rather cold day with sunny intervals and E.N.E. wind of some 10 m.p.h. FALCON III. at work again with several new people. About two hours put in. Difficulty was experienced by some in soaring at all, but a pleasant day nevertheless.

**Tuesday, April 14th.**—FALCON again at it most of the afternoon. Only towed flights were possible as there was practically no wind. Spot landings are ever and always good practice, even for the instructors!

**Sunday, April 19th.**—A pleasant but light N.W. breeze enabled us to put in over 4½ hours with FALCON and KASSEL 20, the latter being aired by Metcalfe at heights very much below those of FALCON. McCleary, Douglas, and Beck all had extensive flights and should soon be ready for solo work, but again the instructor's tendency to enjoy himself interfered with the work and must really be suppressed. Heights up to 2,000 ft. over Binevenagh were obtainable in FALCON, but KASSEL descended inexorably to the bottom when an attempt was made to emulate this example, and landed far from home and succour, luckily close to a road.

### Sailplane v. Raven.

The only abnormal occurrence was the persistent attack on KASSEL 20 by a raven who was apparently guarding his mate on her nest somewhere near Hell's Hole. Every time the KASSEL flew in the vicinity, up would come the prospective papa and attack the machine with a clawing action to the wing-tip, with raucous croaks of rage. After the first minute or two (when ignorance of the damage being done to the fabric had been the anxiety) the pilot began to enjoy himself, and though his efforts at butting the dusky blighter with a tip were quite useless, the motion sent papa raven into a perfect frenzy of rage and impotence, and his attack was immediately intensified. Peculiarly enough only the wing tip seemed to be his objective, and although the striking action of his claws could be distinctly felt through the machine no damage of any sort was suffered, save a puncture in the rudder, and that being in an area out of the pilot's ken, no claim is made for its having been caused in the battle.

The FALCON passengers, being above, had a grand view of it all, but had no cameras with them at the time. It was noticeable that the KASSEL's speed, 30 m.p.h., was a good bit higher than that of the raven's, and the latter had to fly hard to keep up with it. The two-seater did not appear to worry him in the same way and it may be that the silver colour of the KASSEL 20 may have led the bird to believe that it was a giant gull on a marauding expedition. Thank heaven it wasn't a Golden Eagle!

### Midland Gliding Club

**General Notes for March.**—March winds blow from the north and the south and the east, but seldom from the west, so that activity aloft has been much limited this month. A March of progress, though, for the Hereford Branch, marking as it does the acquisition of their first DAGLING and the completion of a fine hangar erected by members. We expect to hear of stirring doings at Hereford this summer and a subsequent crop of prospective "C" pilots for the Mynd before autumn.

Felton's "A" flight at Handsworth, the Secretary Bird's first step in flight, is the first "A" certificate to be obtained by means of a winch launch at Handsworth. Writing of winches reminds us that they are big game to the juvenile mind. We know, because the Buick-cum-winch was left unattended one Sunday mid-day. We learnt later that the cable shears functioned beautifully and that Williams hasn't forgotten how to splice.

An interesting project is being set on foot by the Austin Branch. The idea is to form a constructional club for the purpose of undertaking repairs, building DAGLING wings and possibly new machines. A system of booking in hours will allow members to qualify for flying membership without payment of subscriptions. This arrangement, if properly run, will allow many to take to the air who would otherwise be barred by lack of funds. We believe that Williams initiated the idea and we shall follow progress with considerable interest.

**Easter.**—North-easter. *Verbum sapienti sat est!*

### Fourteen "C" Certificates.

#### April 18th and 19th.

Wings have we, and as far as we can go  
We may find pleasure; wilderness and wood,  
Blank ocean and mere sky, support this mood.

Round these . . .

Our pastime and our happiness will grow.

Just so, Mr. Wordsworth! Had we your genius, an ode to the west wind would be appropriate, but we must curb our mood to record the events of a momentous week-end at the Long Mynd.

Let us explain: Since the formation of the club nearly eighteen months ago, soaring at the Mynd has been impossible (except on one occasion), owing to legal trouble, lack of facilities, weather, etc. So it was that only two "C's," a few "B's" and a number of "A's" were obtained by members, prior to this week-end—when the west wind brought up:—

9 "C" certificates.

5 "B" certificates.

11 passenger flights in FALCON III.

18 hours 17 minutes flying time.

2,100 ft. maximum altitude.

Average windspeed, 20 m.p.h.

Average "ceiling," 1,200 ft.

It may be well to mention that the Mynd is a moorland ridge six miles long and 1,600 ft. high; the main slope of 1 in 1½ faces due west, commanding a plain which extends uninterrupted for many miles. The lift "band" created by a 20 m.p.h. west wind is uncannily deep, it being possible to fly straight out from the hill-top for half a mile or more without loss of height. As the average "ceiling" on Sunday was 1,200 ft. above the ridge, cloud life was frequently felt, so that Olver in KADET II, attained a height of 2,100 ft. and Reilly 1,900 ft. All machines were fitted with air speed indicators and altimeters, and three with variometers.

Under these conditions the likelihood of a landing at the bottom was remote and not once did this occur during the week-end. Nor can we recall a really poor landing, which is saying much when it is remembered that there were six "B" aspirants.

A word of praise for the Slingsby KADETS. These machines exactly suit our requirements. They are responsive to control without being tricky; they have no vices and immediately imbue confidence in the downy chests of "B" candidates. KADET I. (the original of the species) has a lower-lift wing section than KADET II. and is consequently faster and more pleasant to handle.

The unrestricted outlook and nippyness of KADET I. is refreshing after the cloistered complacency of the FALCONS—in spite of the better performance of the latter.

Details of the week-end flights are given below (pre-"B" refers to the two flights of at least 45 seconds required before the "B" test is attempted).

**Saturday, 18th.**—Total flying time, 4 hours 58 minutes. Wind W. to N.W., 15 to 20 m.p.h.

Name.	Machine.	Certificate.	Time.	Max. Height.
Williams	... Kadet II	... "C"	... 10½ mins.	...
Williams	... Falcon I	... —	... 45 "	... 1,200 ft.
Reilly	... Falcon I	... Pre-"B"	... 20 "	...
Swann	... Kadet II	... Pre-"B"	... 75 "	... 1,500 ft.
Timmins	... Falcon I	... "C"	... 23 "	...
Testar	... Kadet II	... —	... 45 "	...
Hardwick and Testar	... Falcon III	... —	... 40 "	... 900 ft.
Meeke and Testar	... Falcon III	... —	... 20 "	...
Mott and Testar	... Falcon III	... —	... 20 "	...

**Sunday, 19th.**—Total flying time, 11 hours 4 minutes. Wind W. to W.N.W., 20 to 23 m.p.h.

Name.	Machine.	Certificate.	Time.	Max. Height.
Reilly	... Falcon I	... "B"	... 6 mins.	...
Reilly	... Falcon I	... "C"	... 75 "	... 1,900 ft.
Reilly	... Kadet II	... —	... 20 "	...
Olver	... Kadet II	... —	... 48 "	... 2,100 ft.
Olver	... Falcon I	... —	... 8 "	...
Olver	... Kadet II	... —	... 10 "	...
Timmins	... Falcon I	... —	... 15 "	...
Mott	... Falcon I	... Pre-"B"	... 25 "	... 1,200 ft.
Mott	... Falcon I	... "B"	... 20 "	...
Mott	... Falcon II	... "C"	... 10 "	...
Healey	... Kadet II	... "C"	... 42 "	... 1,600 ft.
Healey	... Falcon II	... —	... 35 "	...
Healey	... Kadet I	... —	... 40 "	...
Thwaite	... Falcon II	... "B"	... 43 "	... 1,000 ft.
Thwaite	... Kadet I	... "C"	... 16 "	...
Horrell	... Falcon I	... "B"	... 21 "	... 1,000 ft.
Horrell	... Falcon II	... "C"	... 45 "	... 1,500 ft.
Barnes	... Kadet II	... "C"	... 28 "	...
Barnes	... Falcon I	... —	... 20 "	... 1,100 ft.
Barnes	... Kadet II	... —	... 20 "	... 1,200 ft.
Beeton	... Falcon II	... "C"	... 35 "	... 1,400 ft.
Edwards	... Falcon I	... "B"	... 6 "	...

We were unable to get exact times for the FALCON III., but eleven passenger flights were given in 2½ hours' flying time.

There were many visitors to view the sport, but in particular we were delighted to have Professor David Brunt (chairman of the B.G.A.) as guest on the Sunday.

Access to the hangar has been greatly improved by the metalling of the track which leads from the hill-top to Asterton, a three-house village immediately below the hangar. Cars are able to use the track when not too wet.

Local interest has been so considerable that Williams has had to devote a great deal of time to the formation of a further branch of the club in the Church Stretton district. Primary instruction will thus be available at Handsworth, Hereford, Northfields, and Church Stretton.

**April 25th and 26th.**—A good westerly wind made soaring possible on Sunday, although the frequent gusts were disturbing. However, five more "C" certificates, three "B's," five pre-"B's," and one "A" were obtained, and a total flying time of 14 hours 20 minutes was recorded. Those who obtained certificates were:—

"C" certificates: Davis, Lawrence, Wise, Bowley, Dr. Gifford.

"B" certificates: Lawrence, Bill, Bowley.

"A" certificate: Bowley.

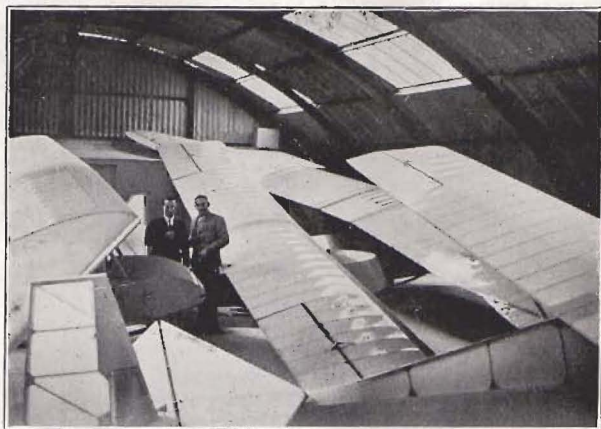
Bowley (a war pilot) took his "A," "B," and "C" certificates on five consecutive flights, whilst Dr. Gifford, who had obtained a "B" at the Dunstable Summer Camp, joined the club and took a "C" certificate 20 minutes after arriving at the Mynd as a casual spectator!

### Hereford Branch.

The hangar was completed and the machine delivered for March 29th, though weather prevented flying that week-end.

On Saturday, April 4th, members attended the opening of the Long Mynd hangar and stayed for tea in the "Bunkhouse."

Primary instruction commenced on Sunday, April 5th, on the R.F.D. Flying has been carried out every week-end since, making



A corner of the Midland Club's hangar on the Long Mynd.

four week-ends in all, and on the evening of Thursday, April 30th, as well.

All except three members are *ab initios*. All are making astonishing progress and are already making steady intelligent flights off the lower slopes of the hill. Particularly good progress has been made by Whaley, Conway, Griffiths, and H. E. Robinson, all *ab initios*.

Up to the end of April 230 launches had been made. Damage nil (touch wood), though one or two have tried to test the breaking strain.

### Imperial College Gliding Club

The Imperial College Gliding Club was founded in 1929, and in the course of six years' independent operation qualifying flights were made for some 23 "A's," 12 "B's," and one "C" (Keeble). Sites used included Baisdean, Storrington, Shaftesbury, and Dunstable, with primary training at Wembley and later at Kingsbury; after 1932, however, operations were confined to Dunstable, and a hangar, now rented by the London Club, was erected there. By the end of 1934, however, it had become clear that, for a club of necessarily limited membership, independent operation did not represent the road to salvation, and accordingly an arrangement was reached whereby the annual grant received from the college student union should be used to bring London Club subscriptions and flying fees within reach of the student purse, instead of being dissipated on the rejuvenation of senescent DAGLINGS.

During last year one "C" was secured and nearly 10 hours' flying done, including an hour at the competitions on the Yorkshire HOLS and FALCON, while so far this year nine "A's" and three "B's" have been obtained, and over 15 hours' flying time recorded.

**A Training Camp.**—This was held at Dunstable during the fortnight previous to Easter, and on the only two soaring days flights of two hours and 5 hours 20 minutes were made by Rainey in the Slingsby GRUNAU BABY. A considerable amount of primary training was also done—on one day alone 112 ground hops were done on a single machine (is this a record?)—and consequently on the one evening when the weather did relent five of the above "A's" were obtained in successive flights. Substantial progress was made by everyone present at the camp, and the group is correspondingly grateful for the work put in by John Noble as instructor.

Other London Club members also took advantage of the facilities provided by the camp and put in some 16 hours' flying, including two five-hour flights.

### Leicestershire Air Sports Club

During the first three weeks of the last four, flying was rendered impossible by the weather. However, on April 12th five members visited the Derby Competitions, though they were unlucky enough not to see any flying.

April 19th saw the B.A.C. II. in action again at Clack Hill, when 24 flights were made. The wind blew parallel to the hedge at first (from slightly N. of W.), but later backed, so that Jervis, Bates, Woolley, and Lane were able to go off the hill top.

### List of Gliding Clubs

The following clubs should be added to the list of British gliding clubs and their secretaries, published in our last issue (page 53):—

**Billingham.**—J. Tunstall, 3, Prospect Place, Norton.

**Harrogate.**—E. T. W. Addyman, The White House, Starbeck, Harrogate.

**Hull.**—R. Kay, 16, Walliker Street, Hull.

**Inverness.**—F. Oliver, 13, Leys Drive, Inverness.

There are also the following changes of secretaries' addresses:

**Cambridge University.**—K. W. Turner, Trinity College, Cambridge.

**Jersey.**—K. J. Carter, 7, The Terrace, Grosvenor Street, St. Helier.

### London Gliding Club

The Imperial College Group began their fortnight's camp on March 30th, with Rainey as chief instructor. Their exploits are recorded separately; but in addition to their own training, which kept them busy enough, they were kind enough to provide a launching team for other club members who wished to go off the top. The result was such a spate of week-day soaring as has never before been known in the club. In two consecutive days, unconnected with week-ends, a total of 24 hours 5 minutes was put in.

**Monday, March 30th.**—Two members put in five-hour flights, thus gaining one "leg" to their "Silver C." (Why is this badge spoken of as if it were the Manx emblem?)

In a moderate S.W. wind, estimated at 10 to 12 m.p.h. (presumably at ground level), Rattray did 5 hours 3½ minutes on the CAMBRIDGE II., which he half owns; Rainey simultaneously did 5 hours 20 minutes on the Slingsby GRUNAU; this machine was also flown for seven minutes by Keeble. Fox did 50 minutes on the Desoutter GRUNAU. The WHITE WREN was soared by its two owners: Richardson for an hour and Morland for two half hours. The FALCON I. was busy, Bucknall doing eight minutes, Curtis 25 minutes, and Pringle and Turner three-quarters of an hour each. Total soaring, 15 hours 13 minutes.

In addition four descents were done on primaries.

**Tuesday, March 31st.**—Another five-hour flight, this time by Fox on the Desoutter GRUNAU; actual duration, 5 hours 22 minutes. The Slingsby GRUNAU was also out, Keeble doing 1 hour 30 minutes, and Rainey two hours. There were four descents from the hill, and 70 instructional hops by Imperial College.

Next day it rained, but on the following day Imperial College had recovered, and did 112 ground-hops in the day. Is this a record? Anyhow, it must have felt like one, for the next day was again spent in recovering.

**Monday, April 6th.**—Six "A" certificates were taken by members of the Imperial College Group.

The PRÜFLING was given test hops, its wing having been re-adjusted so as to give it increased incidence. This machine has a distressing habit of looking as if it is being flown in a permanently and shockingly stalled condition; the changed incidence should therefore bring much relief to the strained nerves of those who watch it from below.

**Easter.**—The wild north-easterlies of Derbyshire became mild northerlies at Dunstable. Some flying was apparently done, as we hear that Ruffle flew the FALCON for five minutes through a snowstorm on April 11th, and that the PRÜFLING did some gliding next day.

**Saturday, April 18th.**—Some good soaring for those who turned up. Keeble got to 1,250 ft. in thermals in the Desoutter GRUNAU, in which he twice flew for 35 minutes, and Bell, who was up for two hours after not having flown at all for over half a year, did some circling over the Zoo. Curtis paid his first visit to (or over) the Zoo, flying the FALCON I. for 35 minutes; Ruffle flew it for half an hour, and Collins for rather longer. Hiscox was up for 2¾ hours in his KIRBY KITE, and Baker did 25 and 15 minutes in his GRUNAU BABY. Mrs. Baker, after a descent in the PRÜFLING, was allowed by her husband to do a similar descent (but a minute shorter) in his GRUNAU, and this after only 1 hour 5 minutes total flying time. For club GRUNAUS at least six hours is demanded.



Cloud currents were used when members of the London Gliding Club made the first cross-country flights of the year from Dunstable, on April 19th, the day this photograph was taken. Mr. Ruffle is flying the "Falcon I."

[Photo by B. B. Gillett.]

The FALCON III. was up seven times taking passengers, flown by Ivanoff. He reached a maximum of 500 ft. in thermals, and did a total of 2½ hours.

One of the nacelled DAGLINGS—the one labelled "Pre-B Pilots May Not Fly This Machine"—was soared for half an hour by a "C" pilot, who then spun it into the hill. It was well and truly wrecked, but he himself emerged unscratched.

Total time of recorded flights, 11 hours 43 minutes.

**Sunday, April 19th.**—This was a tremendous day. Thermal and cloud lift abounded, but the peculiar feature of the air's behaviour was the way in which the lift would come in great surges, so that, as one watcher expressed it, the whole club (meaning most of those who were flying) would detach itself from the hill and float up to 1,000 ft. or so. Modest "C" pilots who had never done anything but plain slope-soaring in their lives, suddenly found themselves looking down from giddy heights and wondering how it had all happened. The phenomenon suggests that the thermal lift was travelling along in broad belts transverse to the wind direction, yet the prevalence of cloud streets, and the use that pilots were making of them, seemed to show that the lift areas were stretched out parallel to the wind. Perhaps the arrangement was transverse low down and longitudinal high up, though theoretically it should, we imagine, be the other way round since the "shear" is greater near the ground.

Richardson, back from his storm-riding excursion across sundry Midland counties, fulfilled the last condition for his "Silver C" by doing the duration flight. He wiled away five hours seven minutes by taking the WHITE WREN up several times to 3,600 and once to over 4,000 ft., wandering round the countryside, meanwhile, mostly by the use of cloud streets.

Not far short of him in duration was Bell, who was up in the BLUE WREN for 4½ hours, from 12.30 to 4.45. Clouds were developing slowly, but not until after the first hour did he begin to get increasingly better thermals. This was shown by the peaks on the barograph, which started by recording them at 500 ft. and then rose to maxima of 1,100, 1,200, and 1,600, after which a fuzzy-looking cloud street came along. As this was not continuous, circling had to be done in the various "bits," so that before long he found himself four miles down-wind over Markyate Street. From this position he worked his way back *against* the wind to Dunstable Downs, getting to 3,500 ft. in the process. There he remained for three-quarters of an hour at over 2,000 ft., taking Leica photographs.

## Two Flights to Hatfield.

The first cross-country flying of the year from Dunstable was done by two pilots who landed at Hatfield aerodrome, 14½ miles to the E.S.E. They actually secured mention in the London Aeroplane Club notes in *Flight*, the explanation given being that they were after their "Silver C's." (Aeroplane men, of course, do not recognise any such activity as flying for pleasure; to establish your sanity you must produce some ulterior motive for your otherwise inexplicable behaviour.)

Hiscox was first to arrive, after a two-hour flight; a thermal, which took him to 3,000 ft., decided him to try his luck down-wind. Having parked his KIRBY KITE, he had settled down to a comfortable lunch when the GREEN SCUD dropped in too. In this machine Barker had left Dunstable as a result of getting some good cloud lift, but he had lost it and dropped to 1,500 ft. over Markyate, where, however, he picked up a good thermal which took him up to a maximum of 3,700 ft. (barograph calibrated by Negretti & Zambra.)

Dent, like Richardson and Bell, wandered at large over the countryside, but landed back at the club ground, being in one of the club GRUNAU BABIES. In a flight of 1 hour 20 minutes he went out up-wind under a cloud street, nearly to Leighton Buzzard (i.e., some five miles), was pushed up to 3,700 ft., slipped off 800 ft. in an effort to get down, was driven back to 3,700, and finally managed to combine horizontal with vertical homeward movements and land.

Other GRUNAU pilots were Humphries (23 minutes), Heath (55 and 35 minutes), and Keeble (33 and 37 minutes). Baker, in his own GRUNAU, had a grand time for 1 hour 15 minutes, circling to 3,300 ft. and touring around Dunstable. Evidently feeling pleased with life, he allowed his wife another descent in it.

The FALCON I. had a busy day, flying for periods of 20 to 60 minutes. Grant got up to about 1,000 ft. in one of the "surges," Pringle to 1,200, and Collins to 1,500; other pilots were: Ruffle, Curtis, Bucknall, and perhaps more.

Burnett and Vigers soared the PRÜFLING, and Laurie got his "C" in it.

Passengers were given rides in the FALCON III., which was taken up twice by Ivanoff and five times by Humphries, and piled up a total time of just two hours. Ivanoff once reached 800 and once 1,000 ft. in thermals.



The "peak of the turmoil," according to one pilot, was about 3 p.m. Greenwich time.

Total flying time for the day, counting only flights of which we could get definite records, was 24 hours 3 minutes. But this does not include Barker's flight to Hatfield, Laurie's "C," and the no doubt numerous descents in DAGLINGS, etc.

**Saturday, April 25th.**—There being a south wind, the winch was in action, and Hiscox took up the FALCON III. with passengers no less than 18 times at about two minutes a time.

**Sunday, April 26th.**—During the morning a pleasant soaring wind, with cumulus clouds gradually turning to cumulo-nimbus. But at 2 p.m. one of the latter variety came over and took away the wind with it, leaving nothing but a light northerly air which wandered around the compass, allowing of nothing but descents from the hill. At tea time, however, it freshened again from the west, so soaring was resumed.

Not all soaring flights were started from the hill; the winch was again in action, and there was one piece of excitement in connection with it (or rather, after disconnection). Rainey had gone up in the Brooklands GRUNAU, and, on pulling the release, didn't notice that the cable had failed to drop off. It was, of course, immediately cut at the lower end by Noble, but before long the inevitable happened; it fouled the high tension wires, there was a flash and a report, and the club lights went out. They soon went on again, but the local engineer-in-charge of Grid affairs, who happened to be visiting the club ground, was rushed off to the golf house to ring up headquarters and assure himself that all was well. Moral: the release gear must be examined each time and cleaned of dirt, and oiled if necessary.

There was a certain amount of thermal lift in the early period; later the air became smooth. Recorded flights totalled 19 hours 26 minutes, but several went untimed, and the total for the day may have been anything between 21 and 25 hours, if not more.

All three club GRUNAU BABIES were in action; pilots were: Armstrong, Bergel (600 ft. maximum), Collins, Dent, Fox, Keeble, Pringle (480 ft. off winch), Rainey (1,700 ft.), Robertson, and others.

Among FALCON I. pilots were Bucknall, Grant, Ruffle, and finally Nicholson, who spectacularly got up level with the GRUNAU in the smooth evening hill-lift and stayed there till dusk.

Among PRÜFLING pilots, Burnett showed skill in just keeping it up in the dropping evening breeze.

The two-seater FALCON was flown four times by Bergel early in the day, and landed each time on top, the public having not yet arrived; Humphries then took it up 11 times, ringing the changes on the winch and hill-top.

There were lots of descents from the top, and a "B" was earned by Firmin, and "A's" by Whiting and others whose names could not be discovered.

Instruction at the bottom, of course, proceeded all day as usual.

Of privately-owned machines, there were Baker's GRUNAU, Hiscox's KIRBY KITE (over two hours), the RHÖNEBUSSARD (Cooper to 900 ft.), CAMBRIDGE II., and the SCUDS of Barker and Davis. Barker tried to do his five hours, but was let down after two hours 50 minutes, when the wind dropped the first time. He had reached 1,500 ft. The BLUE WREN was soared by the Editor for an hour, but the WHITE WREN had the misfortune to be blown over on the hill-top before anyone could fly it.

Among the visitors were T. Campbell Black, H. Broad, the test pilot, and Commander Perrin, of the Royal Aero Club.



G. L. Bell, after drifting down wind while chasing thermals, took this photo of the crowds on Dunstable Downs.

## Derbyshire and Lancashire Gliding Club

**Sunday, March 29th.**—At 1 p.m. visibility at Camphill was about 100 yards and it was raining hard. At 7 p.m. we sat down to tea having won three "C" certificates and put in a total of four hours flying!

The wind was S.S.W., 25 to 30 m.p.h., and as the cloud base level gradually rose Slater was sent off in the GOLDEN WREN to report the conditions with a view to taking some "C's," and after a few minutes he shouted down that it was "O.K., but rough." So Davies was sent up in the NACELLE, and though his first few minutes were a bit hectic, he settled down nicely for a flight of 16 minutes. There was a small "dead area" between Camphill and the beat he had got on to, which he dare not cross on the return, so he landed in our old field by the Barrel Inn. Everyone went along there with the bungy, and the subsequent flights were hand-launched from the Barrel field; although actually it would have been possible at any time to land on our own ground.

Kaye's turn was next, and remembering our criticism of last week he turned immediately off the rope and in no time found himself back over the hill and behind the lift. For this circumstance in a DAGLING and a 30 m.p.h. wind there is only one answer, and this Kaye proceeded to make—safely if not elegantly. He was given another chance for this, and the second time there was no mistake and he kept up for 20 minutes.

Garner was the next to have a go, and again the first few minutes were exciting for everybody. It is most noticeable how anyone improves actually during his "C" flight, and Garner soon settled down to a steady course and speed to get our third "C" of the day with 37 minutes.

Meanwhile Slater had landed the GOLDEN WREN at Camphill and winched off Smith. The WREN was actually flown backwards for about 150 yards while Garner was taking his "C," so the wind must have been at least 30 m.p.h. at this time; no mean wind for a "C" flight. Godson, who took his "C" a fortnight ago, rounded off the day with a further quarter of an hour in the NACELLE, making the day's flying time for this machine 1½ hours.

**Sunday, April 5th.**—Wind east, 10 m.p.h. The day was spent by various working parties preparing for the meeting.

Coleman brought out his new GRUNAU (of which the wing is made in four sections), and it was first hopped and then circuited by Meads.

[The particulars of the Easter meeting sent by the club are incorporated in the description of the meeting which appears elsewhere in this issue.]

A party was held at the Marquis of Granby on Saturday evening, April 11th, and after supper Dr. Slater amused the "children" with music and one of his paper models. We suggest that details of this model should be published in THE SAILPLANE, as the method of its construction is a secret that no one man should be allowed to possess.

**Tuesday, April 14th.**—Wind N., 10 m.p.h. Some of those who had done all the work and had no flying were able to get in a good day's training. Some very nice winch training flights were made by several pre-"A" pilots, durations being anything up to 50 seconds, all on the winch cable.

So ended a meeting which in all modesty we must call successful, despite the fact that no breath of air ascended either of our main West or South Slopes from beginning to end.

**Sunday, April 19th.**—Another red-letter day in the history of the club. Two "C's," over eight hours' flying by club members, and a cross-country flight of over 70 miles. We make no attempt to describe this cross-country flight in detail here, as it is covered by a separate article, but we should like to take this opportunity of congratulating Slater on a very fine effort indeed.

The wind was almost due west, about 25 m.p.h., just not too strong for the NACELLE DAGLING; so Davies, Kaye, and Garner had rides in varying degrees of turbulence before it was decided that perhaps it was a little too rough for this machine after all. The reconditioned PRÜFLING was brought out and tested by Smith (who frightened himself to death for the first five minutes, having flown nothing but the WREN for 18 months), after which Alan Goodfellow took his "C" in it with a nice flight of half an hour. In the meantime Thomas was taking his "C" in the RED WREN with a flight of over an hour. He flew faultlessly throughout, and his approach through the very turbulent area just behind and over the landing ground was delightful. Coleman's GRUNAU made its soaring debut in the hands of Meads and appeared to be enjoying itself immensely.

It is a little unfortunate, perhaps, that on a day like this, when all the "C's" are having a good time, it is inevitably the "A's"

and "B's" who drive the retrieving car and unravel the bungy, etc., etc., but it must be remembered that on a training day they get far more fun than the "C's" and instructors who have to run with the crew and repeat the same things 50 times in an afternoon—so let there be no heart-burnings on either side.

### Furness Gliding Club

The snows and blizzards of March and April have not worried us unduly, since we have a seaside position and snow never remains long. The hangar is proving its worth as a shelter for sailplanes and other birds, which are supposed not to mix with gliders. (Who said "Grouse"?)

**March 15th.**—Wind N.W., strength variable. Charles and Stevens had a good day with the KIRBY KITE, making several soaring flights. For once in a way the order of things was reversed. Charles landed twice on the hill, while Stevens went down to the sands. Meanwhile other members were making strenuous efforts to get the Primary ready for a camp at Easter, which task was duly achieved.

### Easter Camp.

**Good Friday, April 10th.**—Wind light, W. B.A.C. II. and IV. were both in action. New members had initial hops, Todd and Burnett made 60-second flights in the reconditioned Primary, Stevens did a few beats in the B.A.C. IV., and everyone enjoyed the fun.

**Saturday, April 11th,** brought with it a cold north-easter, which a brilliant sun could not shift. Late that night the Harrogate contingent arrived with two machines, and Sunday morning found them well entrenched on Hoggarth's lawn. The wind still clung to the northern quarter.

On this day we had many visitors from the London, Midland, Dorset, Workington, and, of course, Harrogate Clubs. Frank Charles arrived at mid-day, fresh from triumphs on the Speedway. There were plenty of cameras clicking as Addyman rigged the STANDARD TRAINER. But there was no flying, and our own members were in a minority.

**Monday, April 12th.**—Wind N., 30 to 40 m.p.h., terribly cold, with hail showers.

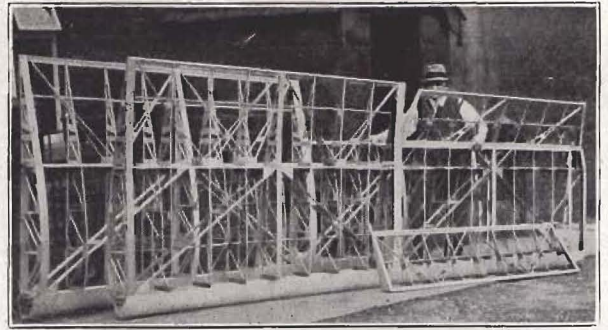
**Tuesday, April 14th.**—Wind still N. Sharples, of Harrogate, had a flight of 3½ minutes, but from the first was destined for the bottom, where he made a good landing. The S.T. was then packed up for the homeward journey, but Addyman stayed on with the ZEPHYR as companion.

**Thursday, April 16th.**—Wind N., strong. Charles had grown impatient and was launched on the west side, where, by the skilful use of promontories, he succeeded in gaining enough height to land back at the top. This proved a tricky business in such a wind, and the KITE was damaged.

**Saturday, April 18th.**—Wind W.N.W., strong, with "cold fronts" and hail. Stevens was soon in the air, where he remained in the B.A.C. IV. for an hour. He gave one of his best displays; often he appeared to be hovering, and finally he brought off a smart landing on the top, where ground conditions were very gusty.

After tea, Addyman tried out the ZEPHYR and soared for some seven minutes, making two landings on top of the hill. Unfortunately, due to lack of assistance, his machine was blown over, and rendered unfit for his colleagues, who arrived the following morning.

**Sunday, April 19th,** marks a day of perfect conditions for the expert. Wind dead west, 30 m.p.h.; sky full of small cumuli.



A pair of new wings for the Furness Club's "B.A.C. II," built in the club workshop. Supporting them is Mr. W. Butterfield, the author of our recent series of articles on Sailplane Construction.

[Photo by Vernon Foster.]

Stevens was early in the air, while Charles bemoaned the absence of the KITE; meanwhile he watched Stevens riding the breeze 1,000 ft. above the hill, inwardly debating the wisdom of attempting a cross-country flight in a club machine. He fought down the impulse and landed on the top after 40 minutes. This has spurred him on to get his own machine completed.

Now came Beauchamp's great chance. At 12.4 he was dispatched in the B.A.C. IV. to take his "C" ticket. He was soon 2,000 ft. above the hill, where he toured the heavens at will, and in stylish manner. For over an hour (some say two) he proceeded to view the Lake District, floating on air. But the wind velocity had increased when the time came for a landing on top. The preliminary approaches were made in a promising manner, but the lift on the windward side of a six-foot stone wall, and the resultant turbulence in the lee, can, in a wind of 30 m.p.h., be very devastating, and so it proved. Otherwise this flight would have been as fine a "C" as ever was earned.

**Monday, April 26th.**—Harman, of Harrogate, made a short soaring flight in the ZEPHYR and landed below in a meadow.

**Saturday, April 25th.**—Wind S.S.W., 15 m.p.h. Charles flew KIRBY KITE for an hour and also had his first flight in a Primary. McConnell and Allen had some thrilling hops.

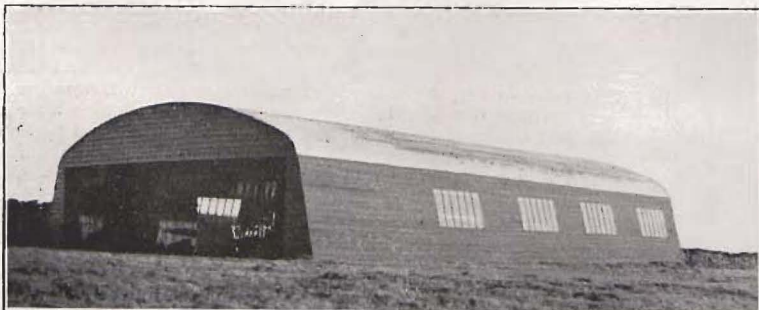
Mr. and Mrs. Brooke, who fly by power to Australia and back, paid us a visit.

**Sunday, April 26th.**—Wind W.S.W., 20-30 m.p.h. Conditions looked good. Charles was up early, hunting for thermals, making any number of fine tight circles at about 1,000 ft. After 40 minutes he came in to land on top. In the afternoon he tried again and gave a polished exhibition, paid off height by *looping*, and came in after an hour's flight to a smart, if fast, landing on top.

Stevens also had about an hour in the KIRBY KITE and was again delighted with her.

Addyman flew his ZEPHYR with the wire rigging screaming in the breeze and then called it a day.

**Monday, April 28th.**—In the morning the gulls were circling and the air seemed full of thermal lift. Charles took advantage of the conditions to get up before noon to a great height and land back on the site. At 1.5 p.m. he was launched again, and after a northward beat of three miles he returned at a great height, gained by circling, and set off home to Roose (and roost). He landed in a field near his garage after circling over his own home at 500 ft.



The Furness Club's new hangar, 60 feet long by over 30 feet wide. Right: the reconditioned "B.A.C. II" in flight.

[Photos by J. W. Dickinson.]

### Newcastle Gliding Club

We were working at too high a speed last month to compile any notes, the object being the completion of four machines for Easter week-end.

Every night during the week preceding Easter the trailer was plying between our Newcastle workshop and Moat Law. The first load comprised the lowly DICKSON (P2). Then went the CRAMCRAFT (P4), followed by JALLAN (Allan's 57 ft. span flying coffin), and Hick's MERLIN. There is now available an expansive workshop with one machine—CRAMCRAFT (P1)—and plenty of room for workers. (Members please note: the modified DICKSON (P3) will be taken to the workshop for completion as soon as there are more workers than work.)

It is hard to make any reference to Easter week-end without losing control of oneself. Seven members "lived" (we mean survived) at Moat Law from the Thursday night until the Monday. It snowed, rained, and blew various gales. When the devoted awoke each morning they had to brush the white frost off each other. Although they stuck this out the whole week-end only one man—Hick—had a few ground hops on the MERLIN. The wind was the wrong way. It was too gusty to even rig the JALLAN. Work was done on the winch car. It was even too wet and cold to drink beer.

After flying this week-end (weather permitting), the MERLIN will be taken to Newcastle Chronicle Hall to be exhibited at the Model Aero Club Exhibition.



The "Merlin" at Moat Law.

### Cambridge University Gliding Club

Operations during the Lent term were held up for some time by the non-arrival of the new winch-cable, but when at last, in the middle of February, it did arrive, instruction started with a swing, and from then on until the end of term a steady average was kept up of almost exactly one day's flying in every two. The NACELLED ZÖGLING was given about 115 winch launches, and earned "A" certificates for R. Allen and Crosfield, and "B's" for Crosfield, Griffin, and Lingford.

Apart from an occasional broken landing wire, the term's flying was accident-free and more or less uneventful. There were, however, a few bright moments, such as when a newly-fledged pilot made a successful cross-wind landing on an adjoining disused dirt-track; or when an instructor, while repairing a break in the cable, tied the cable round his waist in order to restrain anyone else from pulling the other end up to the starting point; unfortunately he had forgotten that the pulling that day was being done by a car, and was soon to be seen running at high speed across the field frantically trying to free himself from his self-made noose.

Thanks to the length of the new cable, the ZÖGLING has frequently been nearly as high as the WREN on the old cable, seven to eight hundred feet being quite common. On one occasion Slazenger took up a barograph, and recorded 820 ft. It will be interesting to see what the WREN or the CAMBRIDGE can do on the new cable.

Instruction was arranged during the Easter vacation for several members who were staying in Cambridge, but had to be abandoned after the second day owing to a small mishap to the ZÖGLING, in which two wing ribs and a rear spar were broken.

In order to simplify the flying-money accounts, flight tickets are being sold in books of 30 for £1. Flights paid for separately cost one shilling each.

April.—The chief event of the vacation was undoubtedly the Derbyshire Easter Meeting, at which CAMBRIDGE I. was flown by Slazenger (her owner), MacClement, Pringle, and Turner; these

members would like to take this opportunity of thanking the Derbyshire and Lancashire Club for the wonderful hospitality they received, which turned a week-end of snow and north-east winds into a very enjoyable holiday indeed.

CAMBRIDGE was given her cross-country baptism at the meeting, when, piloted by Slazenger, she flew from Mam Tor back to Camphill; on the previous day Rattray had made the same flight—also a maiden one—in CAMBRIDGE II. CAMBRIDGE I.'s only other claim to distinction was that she was one of the few sailplanes to return from the meeting undamaged.

Now to hark back to the dreaming spires and snapping landing wires of the Alma Mater; the ZÖGLING was repaired during the vacation, and is now airworthy again. On April 26th CAMBRIDGE I. was given her first flights at Caxton Gibbet. The WREN is being overhauled for a renewal of C. of A., and should soon be ready for flight. Thus all is set for a vigorous assault during the summer at the problem of thermal soaring off the winch.

### Norfolk Gliding Club

Sunday, April 5th.—The DICKSON was taken out to Cley and seven members made 24 flights in a good N.E. wind. Sommerfield did best with one of 25 seconds, which included a wide "S" turn, so, if he can repeat it on a larger scale, and if the C. of A. for the machine eventually turns up, he should take his "A" and "B" with ease. We now have seven or eight members who are waiting to take their "A's" and four more who could take their "B's" as well, but we can do nothing without this ever-delayed C. of A., for which the machine was examined and weighed on December 22nd last year.

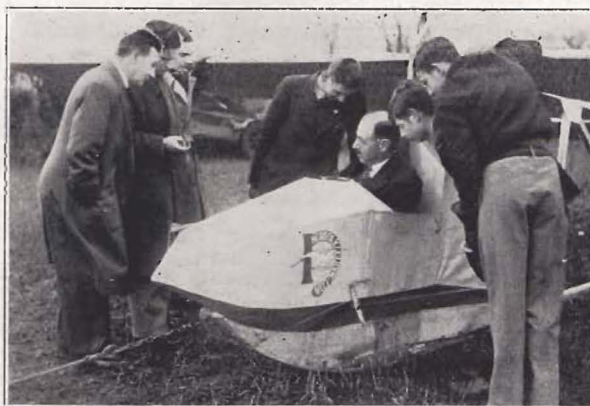
Easter.—The Dickson is now fitted with a new nacelle, much lighter than the old one, and its performance should be improved considerably. Six members had 15 flights in it on Good Friday and 18 on Easter Sunday off three-quarters of the slope, the longest being 27 seconds by Watt. On Monday four members went off the top and did "S" turns, and two hopped from lower down.

We are gradually getting accustomed to the new site, but at first, for some obscure reason, on going over the edge of the ridge we all seemed to shove the stick forward, and, as a result, found ourselves going at a b—l of a lick on reaching the bottom. However, the peculiar sensation due to the ground "dropping away" underneath is not bothering us so much now, and flights are much steadier. Our optimists wonder whether soaring could be done from this site.

A party went on Easter Sunday to look at our proposed sites on Mundesley Cliffs, and found a spanking breeze blowing in from the sea. Bearing in mind various boggy stories about crashes due to turbulence near cliffs, they decided conditions were "not suitable."

On the following two Sundays the wind was unfavourable, so little was done but construction and further site-hunting.

Sunday, March 29th.—Construction work at North Walsham, the wind being west of south throughout the day and therefore apparently unsuitable for Cley. But some members who went over to Cley, late in the day, found the wind blowing off the sea quite favourably.



The Norfolk Club has an ingenious arrangement to prevent the launching ring twisting round the hook and failing to drop off. They use a piece of chain with a swivel link spliced on the end of the launching rope.

## Jersey Gliding Club

### Two "Scuds" in Action.

**Sunday, March 29th.**—With a south wind of 15 m.p.h. Carter was launched from the top in his own SCUD I. and stayed up for 45 minutes. The club's SCUD I. was carried out of the workshop, and in the afternoon both SCUDs were taken up to the gully, but the wind had dropped badly and soaring was impossible. Carter first flew his own machine, then the club's SCUD was flown, first by him, then by Glassford and by Wagstaffe, who landed on rough ground, breaking the tail skid and damaging an elevator. The elevator was soon replaced by a spare one and a new tail skid fitted. The machine's performance appeared to have improved since it has been painted.

**Sunday, April 12th.**—A day of no wind. Glassford was launched from the top towards the sea in the club SCUD, and made a fine flight of 500 yards. Wagstaffe was next, but bounced badly on landing, which broke the tail skid and buckled the ply on the fuselage, but the damage was repaired next day.

**Sunday, April 19th.**—The westerly wind of the last day or two had vanished, so some launches were made on the ZÖGLING from the gully and on the level, and Carter tried his SCUD from the top.

Thermal activity was very strong, as gulls were observed circling and getting very high—on one occasion about 30 gulls together. Very fine cumulus clouds were above us all day until about five o'clock, when only a few small ones were left. Our site should have good possibilities, but our one drawback is that our longest distance would be 10 miles in a straight line.

## The London Gliding Club makes another forward move

The London Gliding Club now possess the first full-time instructor in this country. He is Mr. H. E. Hervey, who will be well known to many of our readers, as he was a leading member of the L.G.C. camp last year. Amongst other qualifications for the job Mr. Hervey has done a good deal of gliding in Australia.

It is proposed from now on to open the club for full training purposes on Wednesdays. Also there will be a period of instruction for club members over Whitsuntide, extending if sufficient support is forthcoming into Whit week. Will intending trainees please forward their names, and the period which they propose to stay at Dunstable, to the secretary of the club.

Up to 16 beds are now available on the club premises, and sheets and blankets are provided by the club.

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## St. Austell & South Cornwall Gliding Club

**Searching for Sites.**—On April 12th the secretary met Rae, of the London Gliding Club, on the Bodmin Moors to look for sites. The moors are a bleak spot, and it snowed hard most of the time. Poor Rae was taken down into a Gehenna of a valley girt about with trees and rivers and down-draughts, and asked if he could land there. He was then taken up on to a high place dotted with granite boulders, bogs and gorse bushes. In a thick blizzard he suggested we might get "B's" there, if we could dodge the boulders! The club will always owe a big debt of gratitude to Rae for his cheerful help, and we hope that if we pull through we may one day repay it.

**The "Keebling" in Action.**—On April 13th all members present had slides in the KEEBLING, and some had hops, including Salton, a war pilot, Geach, a young R.A.F. officer, and James, a "B" pilot from last year's August camp at Dunstable. A grand day, but the hon. secretary broke the landing wires.

On April 19th, watched by a vast crowd of spectators, some had hops and some slides, but it was left to the sliders to break a few landing wires after unintentional hops. We are restricted by the size of the field, but in a few weeks the trailer will be built and we can then move to a more open site.

**A Ground Training Machine.**—This apparatus, built to designs of the Newcastle Club, is for teaching elevator and rudder control, but we should like to hear if any member of the Newcastle Club has yet made a really steady run. None of us have; in fact, we have named it the "Wagtail."

On April 26th a fresh north wind made it inadvisable to rig the KEEBLING, so an amusing and not uninteresting day was spent with the ground training machine.

The first incident occurred when the holding-back crew was increased to two, and the screws holding the launching hook were torn out. Williams, who was standing between the ropes, about 50 yards in front of the machine, had his legs whipped from under him as the launching rope shot past, and described a beautiful loop in the air. The only other incident was when Salton Junior kicked the rudder full over, went on to one wheel, and was pitched out.

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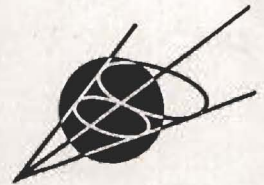
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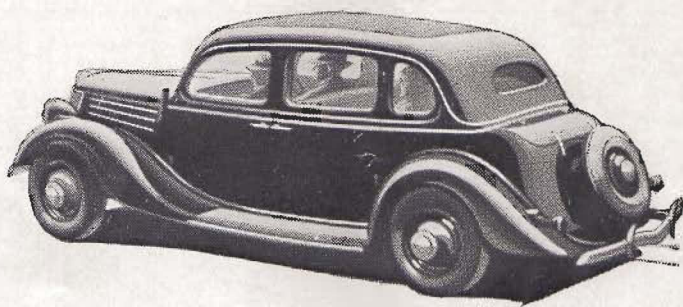
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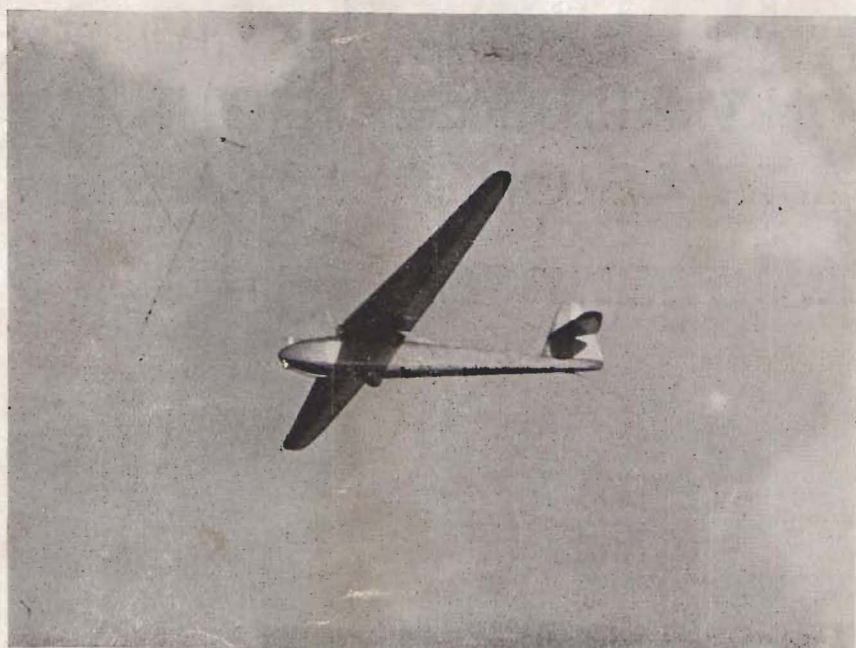
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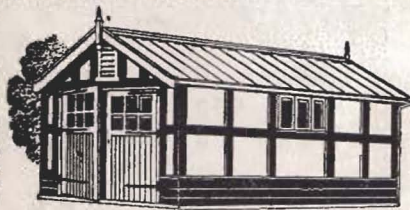
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