THE SAILPLANE & GLIDER

(*Founded in September, 1930, by* THURSTAN JAMES).

The only Journal in the World devoted solely to Motorless Flight.

OFFICIAL ORGAN OF THE BRITISH GLIDING ASSOCIATION.

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Vol. 5. No. 7 July 1934. **Published Monthly Price 1s.**

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CLOUDS FOR SOARING.



An infra-red photograph taken from an aeroplane 15,000 feet over London, looking eastwards. The cloud layer, which was at 6,000 feet, is broken up into regular rows, and so is probably strato-cumulus and not true cumulus. Nevertheless there should be lift for sailplanes under each cloud. [*Photo by C. P. Aron.*

THE SAILPLANE AND GLIDER

43, CHANCERY LANE, W.C.2. JULY, 1934

Money!

"Pending discussion with the interests concerned." What interests, and with what are they concerned? Sir Philip Sassoon used the plural when he spoke of those to whose advice he would turn before disbursing largesse for the promotion of gliding. For it is as well to face the fact that these "interests," no less than their "concern" to get at the money, are about as diverse as they could be.

To put first of all the point of view of those who by *practical* work, and by helping others in their *practical* work, have at last succeeded in putting gliding and soaring "on the map"—so much so as to have made the Government sit up and take notice.

"Interest" No. 1.

It was the spectacle of soaring flight, as practised by Nature's own sailplanes, the birds, which first set men's minds towards the conquest of the air. But the problem of how it was done proved so baffling that nearly all its would-be solvers gave up the struggle, deserting one after another to more utilitarian forms of aerial travel: first the balloon, then the airship, and now the aeroplane. But a few of the dreamers remained faithful to their first ideal, and now their dreams have come true. A new world of adventure has been opened up to those who feel the call to its exploration; of these, some, the pilots, enter it in the flesh; others, the scientists and the technicians, explore it by means which, though less direct, can be none the less exciting. The realm of soaring flight is one whose boundaries are even yet not known, and the pioneer spirit still dominates its explorers.

This, then, is the point of view of the *genuine enthusiasts*, the people who have built up the "gliding movement" into its present healthy condition. One would, at first sight, expect all such to welcome with open arms (or palms) the Government's offer of a subsidy. And yet it is precisely these genuine enthusiasts who, as a result of this offer, view with some alarm the future of this movement which their enthusiasm and *practical* endeavour have built up. And why?

"Interest" No. 2.

The answer is that yet another view exists as to the utility and purpose of gliding and soaring. The idea can be expressed briefly as the Youth of Britain Plan. A well-known soaring pilot puts it thus: "Hundreds of Youths (we have grown to hate that word) in rows of tents being dragooned into being air-minded and pilots (to what end? we might ask rhetorically); officials and instructors everywhere (though unless imported from abroad it is difficult to see from where they will come); platoons of *ab initios* in column of fours; and all for a minute sum of money per head. Speaking for ourselves, when the bugles blow at 5.30 a.m. on a morning and hundreds of fresh-faced Youths pop out of hundreds of tents, scrambling hastily into shirts of a uniform and distinctive hue, to march off for an hour's physical training before breakfast; speaking for ourselves, we repeat, we shall not be there."

Will anybody else be there? This is, we may mention, not an exaggeration, but a true picture of what is going on abroad, and it is precisely this picture which has been in the minds of many of those who claim to have been instrumental in getting the subsidy. If that subsidy is going to be used to promote this sort of thing, where is the "drive" to come from to keep it in a flourishing condition? Not from the (necessarily) experienced staff, who can only be recruited from those whose experience is due to the pursuit of very different ideals. Nor from the pupils (if any), who will have to be taught that the goal of their ambition is, not to achieve the highest soaring skill, but to bring nearer the day when they will be quit of gliding for ever, and transfer to some form of aircraft more suited for mutual destruction.

The Alternative.

The alternative to this is to take the only way which is really suited to this country, the way in which every sport in England, including power flying, has come to success, and that is: *keep it as a sport*. It will then be run by the right sort of people in the right sort of way—people who look on the attainment of skilled soaring flight as a goal worthy of any man's ambition, and, if they are offered financial aid from outside, will use it purely to build up facilities to enable as many others as possible to share their enjoyment, and to help further progress in the art and science of soaring flight.

ANNOUNCEMENTS

THE FUTURE OF "THE SAILPLANE."

We go forward! The recent rising tide of interest in motorless flight is such that the past few issues of THE SAILPLANE have been sold out, and the time has come when, with professional management, the production of this paper on bigger and better lines has become a possibility.

Mr. H. O. Davies, who is better known to readers as the Hon. Secretary of the London Gliding Club, is also, in his business life, head of a firm of publicity agents. He has very sportingly offered to take over the running of THE SAILPLANE from the B.G.A., because he, too, feels that there is a sporting chance of making it a business proposition.

Dr. Slater is to remain Editor, also the paper is to remain the official organ of the British Gliding Association. It will be produced in a larger and more attractive form, with a coloured cover, and the price will shortly be reduced to 6d. monthly. It will also be on sale on certain bookstalls.

The advantages of this change to the movement as a whole will be enormous. In the first place the circulation will without doubt be greatly increased; and every new subscriber to the paper is a potential supporter of the movement.

The constant drain on the resources of the B.G.A. entailed by running the paper will be removed, enabling the Association to concentrate all its energies on other vital matters (such as Certificates of Airworthiness) without constantly having to worry about keeping its head above the financial waters.

And the fact that Mr. Davies, with his experience and equipped office will be behind him, will lighten Dr. Salter's task enormously, will enable the latter to concentrate entirely on the important tasks of editing and to leave the groundwork to others; and thus the paper will appear regularly on a definite day.

We therefore ask the co-operation of everybody concerned in this big step forward.

First, will all contributors, particularly Club newswriters, *see that the up-to-date and full reports are sent in to arrive not later than the 20th of the month.*

Second, will clubs and subscribers do their utmost to put up the circulation of the paper by every means in their powers. Hundreds of copies can be sold to the public on every good week-end along the hill-top at Dunstable, Sutton Bank and elsewhere. All that is necessary is to get some self-sacrificing member to spare the time to sell them.

Thirdly, will photographers who take good pictures be kind enough to send copies to THE SAILPLANE for publication. In the past help of this sort has been missed very badly. Somehow people will not realise how we are starving for good photographs, although where Club members are gathered together there are always plenty produced for each other's deserved admiration.

THE SAILPLANE in its new and enlarged form commences with the August issue—look out for it. The September issue WILL BE A BUMPER NUMBER, with 32 pages incorporating full programme and details of the Sutton Bank competitions.

A tribute must be paid to the Commonweal Press, whose loyal assistance has enabled the paper to be carried on for the past two years in such difficult circumstances.

The new Editorial Address of "The Sailplane" is:
13 Victoria Street, S.W.1.
Advertisers, Contributors and Subscribers please note.

SUTTON BANK 1934.

At last the spate of negotiations and talk are having concrete results, and the hangar and club-house at Sutton Bank are actually under way.

The Yorkshire Club hopes to hold a small opening meeting over August Bank Holiday—August 3rd-5th—and any private owners, etc., who care to visit them will be welcomed. There will be no competitions of course; the meeting is simply a sporting one, and for the purpose of gaining experience for the big September Competitions. And we hope possibly to have a two-seater machine there for instruction and joy-rides.

For their own protection the Yorkshire club have had to make a few rules. ALL MACHINES FLOWN FROM THE SITE MUST HAVE A CURRENT C. of A. Visiting pilots are asked to become at least weekly members—the sub. for this is 10s. and this gives full membership rights, including use of club-house, workshop, etc. And all machines flown must be covered for third party risks. Will intending visitors please write to the Hon. Sec. of the Yorkshire club without delay?

The September Competitions.—Will intending competitors please write to the B.G.A. as soon as possible? It is neces-

sary to have a current competitor's license; do not forget about the C. of A. and third party insurance: it is necessary to take out a special cover for competitions. And please remember: *competitors must bring their own barographs.*

It has been decided to have two classes for competing machines based on wing-span: this will greatly enhance the interest to competitors and spectators alike.

With regard to accommodation, there will be a strictly limited number of bunks in the club-house, and tents can be pitched on the site. Or rooms can be booked in the local hotels.

We want all the help we can get; please bring every wife and adult child you can raise.

GLIDING CERTIFICATES.

The following Gliding Certificates were recently granted by the Royal Aero Club. The columns show: No. of Certificate, name, club, and date of qualifying flight.

"A" Certificates.

355.	A. Ivanoff ...	London ...	July 1st, '33.
356.	D. A. Smith ...	London ...	Feb. 11th, '34.
357.	W. Scott King ...	London ...	Apr. 22nd, '34.
358.	A. H. Curtis ...	London ...	May 14th, '34.
...	B. J. Stephens ...	Dorset	... ...

"B" Certificates.

275.	J. S. Sproule ...	London ...	June 6th, '33.
355.	A. Ivanoff ...	London ...	Sept. 9th, '33.
357.	W. Scott King ...	London ...	May 13th, '34.

"C" Certificates.

275.	J. S. Sproule ...	London ...	May 13th, '34.
320.	H. F. Hastwell ...	Yorkshire ...	Apr. 22nd, '34.
325.	G. L. Bell	London ...	May 13th, '34.
330.	C. W. Jowett ...	Yorkshire ...	Apr. 22nd, '34.
355.	A. Ivonoff ...	London ...	May 5th, '34.
357.	W. Scott King ...	London ...	May 13th, '34.

A STATE SUBSIDY FOR GLIDING.

In Parliament.

On June 27th Commander O. Locker-Lampson asked the Under-Secretary for Air whether he was yet in a position to make any statement as to the possibility of Government financial assistance to the gliding movement in this country.

Sir P. Sassoon replied: Yes, Sir. My noble friend (the Air Minister) has reached the conclusion that some measure of financial assistance to the gliding movement from Air Votes is justified. This will probably take the form of assistance towards the formation and maintenance of a properly organized central gliding school, which is regarded as essential to the sound development of gliding, coupled with a small capitation grant to approved clubs in respect of each certificate taken out by their members. Pending discussion with the interests concerned, I am not in a position to give any further details. I may add that financial assistance will be limited to a five-year period in the first instance, and will be subject to an overhead limit of £5,000 annually. In view of the official recognition thus accorded to the national importance of gliding, my noble friend trusts that generous financial support will also be forthcoming from private sources in order to ensure the success of the movement.

—And Outside.

"An enthusiastic and full meeting was held under the auspices of the Hands off Britain Air Defence League at the Kingsway Hall last night. Songs were sung . . . . and speeches were made. . . . . The Chairman, Lord Waleran, said that the organization had its purpose as an independant ginger group. An example of its success was Sir Philip Sassoon's reply to Commander Locker Lampson last Wednesday and the announcement of substantial support at last for Gliding. (Cheers.) This was a remarkable achievement, and he hoped the cause would continue to prosper in the same measure. (Applause.) . . . . Mr. C. Cooley, the Secretary, moved a Resolution thanking Sir Philip Sassoon for his action over gliding, which was carried unanimously."—*From an advertisement in "The Times," June 29th.*

KRONFELD CASTS OFF IN A HURRY.

On June 11th Robert Kronfeld was being aero-towed in his sailplane from Gaillac to Limoges, where he was to give a demonstration, and had proceeded about 10 miles, when he received a message from M. Koubala, pilot of the towing aeroplane, that its engine was on fire. (They were connected by telephone line as well as cable.) Kronfeld therefore cast off (who wouldn't?) and landed near the village of Verdier. M. Koubala landed in a field and jumped out just before the petrol tank exploded. A few minutes later the aeroplane was burnt out.

A FALCON IN WALES.



Above: G. E. Collins starting for a flight in the "British Falcon II" at Prestatyn. Below: the same "Falcon" where it landed after Mr. Hardwick, Chairman of the British Gliding Association, had soared it to 3,000 feet above his starting point. L. to R., Mrs. Collins, Mrs. Hardwick, F. Slingsby, H. T. Testar, two Manchester Club members, and C. E. Hardwick. These flights are described in an article beginning overleaf.

ENGLAND'S AIR-MINDED EDITORS.

"The most interesting feature of the air display yesterday, to ourserves, at all events, was the *Sheffield Telegraph* glider. That a contraption possessing no engines should not only be able to remain a considerable time in the air, but also travels some considerable distance and carries out some fairly complicated evolutions, has always seemed a bit mysterious to our highly non-technical mind.

The glider is towed into the air by an ordinary aeroplane, and is then cut adrift and left to find its own way, which it did yesterday with extraordinary cleverness.

The sight produced one consoling reflection. If a machine without engines can do all that the glider did, there seems no need for an aeroplane to crash simply because its engines fail. Probably that is what happens now. The aeroplane becomes a glider, and so gets safely down. We are not sufficiently expert to say if that is what does occur, but we found it all extremely interesting."—*From the Sheffield Telegraph.*

[And this *after* attending an air display!—Ed.]

A POPULAR FALLACY.

It is a common gibe of those who refuse to go up in the air, that "if anything goes wrong on the road, you haven't got all that way to fall."

On May 14th a Bolton (Lancs.) Corporation Bus skidded during a rainstorm at Little Lever, crashed through a wooden fence and dived over a 60 ft. embankment, landing upside down on the bank of a stream. The driver was detained in hospital with serious head injuries.

On May 17th a motor coach travelling from Portsmouth to London ran off the road and fell 90 ft. into the "Devil's Punch Bowl," near Hazelmere, Surrey. The driver was rendered unconscious, one of the five passengers (Mr. J. M. Overall, aged 75) was killed outright, and the other four were still too ill to attend the inquest, which was held on June 4th.

About June 18th a charabanc fell 300 feet down a ravine near Algiers, seriously injuring 17 of the 40 pasengers. And, as the cause of the accident is said to have remained undiscovered, there is no guarantee that the same thing may not happen again.

A CLUB IN EAST DORSET.

Mr. R. Potgieter, of "Wings," Arley Road, Parkstone, a South African pilot with 200 hours' aeroplane experience, and instructor to the Young Airmen's League at Winton, has started a gliding club and is lending it a glider of his own for jitstruction purposes. Members have already had

A SOARING EXPEDITION TO NORTH WALES



The "Blue Wren" goes to the seaside. Left, above: packed in its trailer ready to leave its birthplace, Mr. Manuel's back yard. Centre: the camp at Prestatyn. Below: Bishop's Wood, over which the first day's soaring was done. Right: J. P. Dewsbury about to start and starting on the first flight of the Expedition, with the Irish Sea in he background.

A morning spent in recovering from the London Club Dinner, and we were off along the Bath Road, where, some hundred years before, one Pocock had travelled from London to Bath in his "kite carriage." (This, by the way, was the reverse of being auto-towed; it was a towed-auto, for the aerofoil—in the shape of a kite—did the pulling, and the carriage bore the pay-load.) Our own aerofoil awaited us at Twyford in the shape of the BLUE WREN, awaiting delivery at Manuel's to its new owner. Driving the car was J. P. Dewsbery, who was kindly taking the WREN north in return for flying it when he got there. On past the Malverns (crying out to be soared over), the Clee Hills (where somebody once tried to organize a soaring meeting), Wenlock Edge (too wooded), The Wrekin (ditto), and, having resisted the impulse to unpack the WREN and try it out at these places, we arrived at Gwaenysger in the middle of Saturday at precisely the same moment as C. E. Hardwick and party with his FALCON from the Midlands.

The WREN's safe survival of the previous night in an open inn yard taught the lesson that only by being completely boxed in, so that no one has the least idea what it is, can a glider be safe from prying eyes and fingers.

The camp had been set up (by previously obtained permission) in a field on a hill overlooking, almost overhanging, Prestatyn. Anyone walking about in Prestatyn cannot help noticing the slightest sign of activity on the hill-top, so, when two sailplanes were suddenly seen to float out into space, flit silently about the skyscape, and wriggle skilfully back into the tiny hill-top field, it was not to be expected that Prestatyn would take the matter lying down. Nor did it. Before long it arrived, or a considerable portion of it did, in various states of breathlessness, at the top of its hill.

Compliments were exchanged. The Superintendent of Police nearly pushed his helmet through FALCON'S wing. The Mayor (at least he said he was) welcomed us to Prestatyn in the name of his fellow-townsfolk. (I have since found out that Prestatyn doesn't run to a Mayor, but no doubt it is a courtesy title for the Chairman of the local District Council.) And a dear old gent asked when we were giving the next "demonstration." Why can't the public understand that it is possible for a pilot to fly for his own personal pleasure? All this air-mindedness propaganda has led the public to assume that whenever they see anyone in the air, it must be because some Organizer has booked him for a Display, or a Pageant, or a Demonstration, a Circus, or a Mission, or something. (A similar attitude towards gliders can be found not only outside the gliding movement.)

In the gaps between answering interminable questions we did what we could to keep the cows from chewing up the machines and the crowd from dislocating their control surfaces.

Flying had begun at 6 p.m., as soon as the wind had veered sufficiently after the trough of the last depression. The clouds looked promising, and gulls were occasionally picking up thermals. The launching site was on the brink of a northerly slope facing the sea, but round the corner to the west was a steep hill clothed by Bishop's Wood, facing W.N.W., just right for the wind.

In the race to assemble, the BLUE WREN won and was shot off with Dewsbery. The FALCON followed with G. E. Collins. Both rose well as soon as they were round the corner and over Bishop's Wood. Heights varied continuously between the hill-top (600 ft.) and 1,500 ft., but no very startling thermals were found. They did about three-quarters of an hour each.

Later, the wind having dropped a little, Collins popped round the corner again in the FALCON to see if the lift was still good. It was, just, so C. E. Hardwick, the FALCON'S owner, had a try, lost lift to the corner, struggled hard to regain it, and returned to the next field lower down with a Lowe-Wylde landing (down-wind, and turn into wind with wing-tip on ground).

We arranged all available cars and trailers in a semicircle, "covered waggon" fashion, to keep the cows at bay for the night; within it the machines were safely parked, well out of chewing range.

All next day the wind howled and the rain pelted. Dewsbery decided to go home, and had to take the WREN too, there being no other means of returning it. This left us with the FALCON, and a party consisting of Hardwick, Collins, Slingsby, Testar and self, the first three with wives, the last two without, having none.

Whit Monday turned out to be the day we were all waiting for. A hearty west wind, with a touch of south in it. The real point of this expedition was the existence of the Clwydian

Range, a line of hills all up the east side of the Vale of Clwyd. The valley has a flat bottom 2 to 4 miles wide, with hills less abrupt on the opposite side; its river enters the sea at Rhyl. These Clwydian mountains face the west and south-west with steep sides and provide a soaring beat, with an awkward gap or two, of 18 miles in length. Their opposite numbers across the valley are too far off for any of their down-draughts to spoil the fun.

A launching site had been previously chosen above Cwm village, at about 670 ft. It was between two hills, either of which produced good lift once they were reached.

Collins was first off. Seeing him from down below, I tried to chase him on a bicycle, his ground-speed being about the same as mine. Saw him outlined against a lenticular cloud; looked round again and he had gone; began to prepare mentally a write-up about First Sailp'ane Pilot in World's History to Enter Lenticular Cloud. But he hadn't. He had turned down-wind and landed at the launching point.

These lenticular clouds—and there were several isolated sheets of them—all kept in much the same places all day, with the wind blowing through them. They were evidently due to the presence of Snowdon to the west; the air descending over the lee side of the mountain rebounded up again, not once but several times. In the same way, on a smaller scale, a series of stationary waves may be caused in a river by a boulder just beneath the surface.

The barograph tracing of Collins's first flight is not reproduced, as it began and ended below the sheet and so the height is not known. The first tracing shown herewith is that of F. Slingsby, the builder of the machine, who followed him. He floated out over the trees and round to Cwm mountain on the left, gained a respectable height, and took an immense time to come down again in spite of going half a mile behind the top of the soaring slopes.

Next, after borrowing all available overcoats, was Mr. Hardwick. He met a nasty down-draught just after taking off, and pushed the nose hard down to get through it quickly. Then—well, look at the barograph record! He first visited the hill on the right, then spent the remaining time hovering over Cwm Mountain on the left. Every time he felt anything happening, he eased the stick back (exactly contrary to the common habit), and an extra upward jerk was given to the already rising barograph pen. First thrill: seeing the whole of the valley open up below him—the view of a lifetime. Second thrill, seeing little bits of rudimentary cumulus forming far underneath. Thirdly, at some three-quarters of a mile above sea-level, with the variometer still showing a healthy rate of climb, and the Falcon beginning to drift backwards, he realised that it was going to take an unconscionable time to get down again, and that it would be as well to make a start while the going was good. Actually the descent took eight minutes, but it seemed like half-an-hour to those watching below, whose repeated cries of "Look at our Chairman!" became hushed as they watched the manœuvres. At 500 ft. the pilot was suddenly pushed down to 400 by some eddy or other and so prevented from reaching the proper landing field. However, Collins hopped the machine back over two hedges into the "aerodrome."

Collins then started on an attempt to get as far up the valley as he could. He got across the gap at Bodfari and made for the mountains. Unfortunately, low cloud became troublesome before long. The return journey was somewhat against the wind, and, to make headway, the Falcon's nose had to be put down so much as to cause it to enter one of the clouds from above. (This was a new experience; in previous cloud flights Collins had entered them from below.) These low clouds had been down on the hill-tops earlier in the day, but had then lifted clear. But there was no knowing when they might descend again. Just in time, Collins remembered he had a compass in his pocket, so he whipped it out as he entered the cloud, and was able to keep facing the wind till he came out again into the open. He did a fine aerobatic descent to the landing ground, having the stick "hard back in his stomach" during one of the vertical-axis loops, while the barograph pen fell vertically.

Testar then went off to qualify for his "B" Certificate. There was no mistake about the necessary "S" turns. He S-turned between the two hills, first keeping height, then losing it, till he finally skimmed between two trees and sat down neatly in a large field at the bottom. Thus ended a fine day's work.

A delightful feature of this trip was the friendliness of the local inhabitants, including even the landowners. As to the site, pleasant local soaring can be had over Prestatyn in sea-breezes, but the 18-mile beat needs not only W. or S.W. winds but clear weather as well, for these, like all Welsh mountains, are apt to be fairly frequently in the clouds. But the views are glorious.

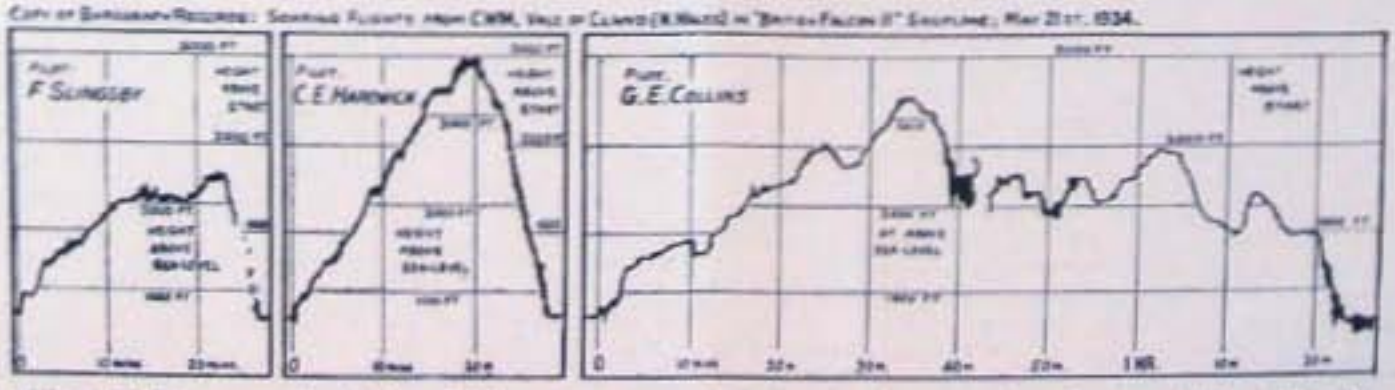
A. E. S.

[The following week-end the writer visited the Ulster Club, but his account of this will have to be postponed till the next issue.]



PUTTING THE CLOCK BACK.

Have the Dorset Club taken a step back to the days of Lilienthal? A recent newspaper report said that "At Maiden Newton 12 flights were made with Dangling."



Three flights over the Vale of Clwyd as recorded by the barograph. Contrast the straight up-and-down of Mr. Hardwick, who hovered in one place, with the wavy line of Mr. Collins, who worked his way along the Clwydian Range, gaining height over each eminence.

SOARING OVER RIO

[The German soaring expedition to South America, which left Europe on January 5th last, has now returned home. The following extracts from an account of the first day's soaring, written by Peter Riedel, one of the Expedition's pilots, have been translated for us by Herr W. Exner.]

When at last the customs difficulties had been solved, the trailers with our gliders rolled through the streets of Rio. In the suburbs they were followed by little nigger boys shouting "Zeppelin," who were aware at any rate that these boxes contained something that could fly.

We got through suburbs and rocks to the Campos dos Alfonsos aerodrome, where it was hotter still at 40 deg. C. (104 deg. F.) than in Rio, which had a "cool" wind from the sea at 32 deg. C. (90 deg. F.).

The right sort of weather arrived after four days' waiting. The wind came from the interior regions, from the mountains which line the horizon north of Rio. The commandant of the aerodrome is looking after us splendidly, and a dark-skinned mechanic, one of the best in the air force, is ready to do everything he can for us, especially for Hanna Reitsch.

At 11 o'clock the first clouds are forming against a blue sky. The sun is almost vertically above us and shining mercilessly. Hirth's machine is not ready yet, so Dittmar is taking his CONDOR (with which he afterwards attained the new height record) to the starting place, and I my FAFNIR, pulled by a car. The ever helpful soldiers bring Hanna Reitsch's GRUNAU BABY, which later carried her up 2,000 m. (6,600 ft.), establishing a world's height record for women.

Prof. Georgii is arranging the order of starting, just as he does on the Wasserkuppe. At 11.25 Heini Dittmar is taking off in the CONDOR, towed by our MESSERSCHMIDT M.23. Soon after that Heini releases at 1,000 ft. With steep turns he is quickly gaining height. I see incredulous astonishment on the faces around me and then enthusiastic admiration. Then Hanna Reitsch starts and soon reaches an imposing height.

Finally my turn comes. I put a few green oranges into the cockpit, fix on the parachute and get into the seat. It is frightfully hot in the enclosed cockpit. The sun is scorching through the cellophane. All set, the towing machine at full throttle, and the FAFNIR rises after a short run. The power machine climbs quickly in a gust, and I have to hurry to keep pace. Towed flying in the noon heat is no fun. The FAFNIR is creaking in every part, so strong is the grip of the gusts on the large-span wings.

I watch the variometer with excitement: climbing hard! Now release! The cable is falling away, and FAFNIR makes steep turns in the up-current. I released at just 400 m. (1,300 ft.) above ground level; soon I reach 2,600 ft., but with a sudden severe shock I am taken by such a down-current as I had never experienced in Germany. I am falling as in a lift; luckily the aerodrome is not far off. The wonderful panorama of Rio which I was enjoying is disappearing again behind the mountains. Then I continue soaring for a long while, just keeping my height at 1,600 ft.

Vultures as Guides.

Then I notice the vultures, the legally protected "health officers" of Rio de Janeiro, who can help me. Almost the size of a goose, grey, ugly and with bare necks, they are not pleasant to look at, but are marvellous thermic soarers. Often enough we had watched them during the preceding days—how they circled for hours without moving a wing. There are thousands of them on one island, which is the scullery of Rio. There the vultures act as scavengers. The island is full of the grey fellows. Without our sympathy on the ground, they become our good friends in the air, where they act as our guides. I am still holding out in very weak up-currents at 1,600 ft. when I notice six of these birds near me. I have just got underneath them when I am immediately taken up by a strong up-current. With surprising force my FAFNIR is carried to 5,600 ft. within a few minutes. The white steam of a cloud is forming above me.

Some hundred yards to one side my faithful guides are circling on. But I am carried higher still by the rising current. The fight for height in narrow turns is getting easier; the eye reaches far away over this city, which has no equal on earth. Between steep, rocky mountains, the blue bay and the Atlantic is Rio, its numerous streets and houses. In the south, sea and sky are obscured by haze. Further towards the interior of the country, cloud follows cloud. A cross-country flight into the unknown would be thrilling, but—safety first! I therefore remain over Rio and make a systematic tour of its surroundings.

During the continuous ups and downs I reach my greatest height of 7,220 feet. Up there it is nice and cool, especially if I circle under a cloud. Then Dittmar appears quite near by, and soon CONDOR and FAFNIR are circling around each other, just as they did some time ago before going off on a flight from Darmstadt. On that occasion Dittmar reached Saarbrücken, and I went as far as Epinal in France—a happy memory of a side-by-side fight for success.

Over Rio.

For a long time we circled underneath the same cloud at 6,200 ft., so near each other that we had to be careful. But the cloud is dissolving and we part. I follow the vultures. It was 11.50 when I started. Now it is about 2 o'clock. As I don't like oranges unpeeled I have to do without refreshments. The clouds are slowly moving towards Rio. I go along with them, and soon circle over the wooded slopes of the rocks grouped around the town. Then further, over the fashionable beach of Coppablanca. A fortification with grey concrete sides projects into the sea through the breakers.

In the streets a crowd is gathering and heads are turned towards the "*planador allemao.*" I am only 1,000 feet above Spanema, a residential district by the sea. I prepare for a landing on the racecourse, but a new up-current gives me lift and—I notice the vultures again soaring in narrow circles, taking no notice of this big, silent, human bird. I see clearly the yellow marks on their outstretched wings.

The circling is getting troublesome. At this low altitude the up-currents are narrow cylinders and don't last long. It takes all one's energy to get and maintain height. All too quickly one may get into a down-current which may force the machine down to a premature landing.

"Follow-My-Leader."

One vulture calls my attention. He is the leader, obviously. He is usually at the greatest height, in the best up-current. I keep my eye on him. At times I have almost lost him. It needs all possible skill and attention to follow his sharp turns. But I have to thank him for keeping in the air for another hour. At times we get so near each other that the grey bird, frightened, turns suddenly and shoots down. The others compete with us two in our circling. Couples keep together and play with each other.

At 3.30 it is all over. The grey fellow-gliders circle high above, around the rocks of the Corcovado where I cannot follow. And all the up-currents seem to have been blown away. Silently, very slowly, I am sinking. Groups of people can be seen in the streets.

Now for a good landing on the racecourse of the Jockey Club. The FAFNIR glides along the tribunes over the lawn and comes to rest. I am soon surrounded by mulattos and niggers, attendants on the horses of the Club, who stare at me. This was my first flight in South America: 3 hrs. 40 mins. distance 15 miles, greatest height 7,220 feet. Dittmar and Hirth stayed up for 4 hours and 3 hours 10 mins. respectively. But more than the figures was the grand experience of seeing the gorgeous country beneath us, and enjoying this New World into which we had come.

SOUTH ATLANTIC SOARING FLIGHTS FORECAST.

Following observations made during the recent soaring expedition to South America, it is reported in the press, Professor Georgii announces that soaring trials are to be carried out over the South Atlantic by German pilots. The steamer "Westfalen", which already serves as a half-way air base for commercial air liners, will be used as a base, and the sailplanes (which are to be made of light metal and adapted for alighting on water) will be towed aloft and then released. Flights of 125 miles are believed to be possible.

We imagine the intention is to make use of the long processions of cumulus-like clouds which are characteristic of certain trade winds.

MISS MEAKIN'S MANY LOOPS.

On June 16th Miss Joan Meakin, who is touring with Sir Alan Cobham's Air Circus, looped the loop 18 times in her sailplane after an aero-tow to 4,500 feet. This was at the Bristol Airport at Whitchurch. The press claims this as a record, as it beat Hanna Reitsch's best by 3 loops. It is not a world's record for looping a glider, though it is probably the record for women. We believe, however, that Frl. Reitsch's figure is 16, not 15.

The first 17 of Miss Meakin's loops were continuous, the last being apparently thrown in as a makeweight just before landing.

NEWS FROM HORNBERG

Mr. G. E. Collins, who holds the British height record for soaring flight, has been doing great things at the Hornberg Soaring School, near Stuttgart, where he has attended a course. The machine he has been given to fly is a GRUNAU BABY II, which is specially suited to aerobatics. We stated last month that, on his first day's flying at the School, Mr. Collins looped the loop four times—the first loops he had ever done.

We now hear that he has set up a local height record for the Hornberg, which was previously held by Baur with a height of 1,600 metres in the FLEDERMAUS. Mr. Collins started with an aeroplane tow, and appears to have cast off at about 1,900 feet above the start. He gained height in thermal currents and then rose for 3,000 feet inside a cloud, flying "blind" entirely by instruments and "feel." During the flight he reached 1,800 metres (5,900 ft.) above the point of release, or 7,800 feet above the Hornberg. This works out at about 10,000 feet above sea level.

The flight, which lasted two hours, was concluded with right and left spins, Immelmann turns and loops.

Mr. Collins, who was trained by the London Gliding Club, learned to fly exclusively on gliders and sailplanes.

A full description of the Hornberg School was given in our issue of last November.

THE "FLEDERMAUS" IN A SNOWSTORM.

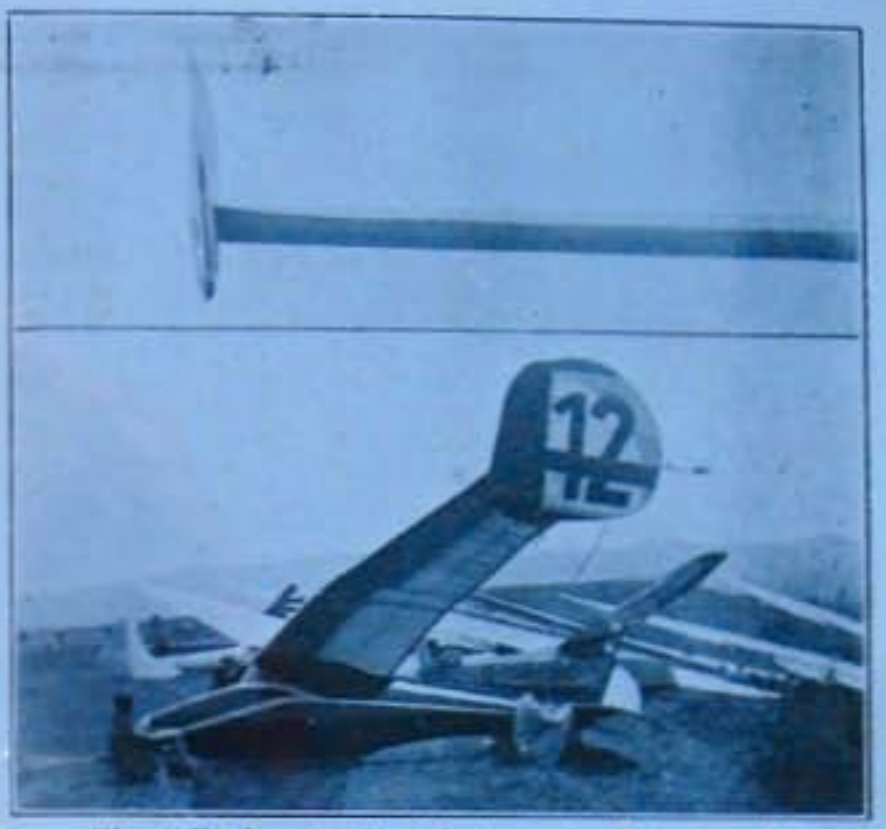
We mentioned recently an interesting flight in an experimental type of sailplane, the FLEDERMAUS, at the Hornberg, whereby its pilot gained the "Silver C" certificate—the first time this certificate has been gained in a machine of other than conventional design. The FLEDERMAUS has a vertical fin, with rudder attached, at each wing-tip, and the tail consisted of an elevator only, until the Rhön technical commission insisted on a fixed vertical fin being added to it. The machine was produced by the Academic Flying Group of Stuttgart.

The flight mentioned set up a local height record for the Hornberg, and since this has just been beaten by our Mr. Collins, details of the original flight may be of interest. The following account by the pilot, Karl Baur, is translated from *Flugsport* :—

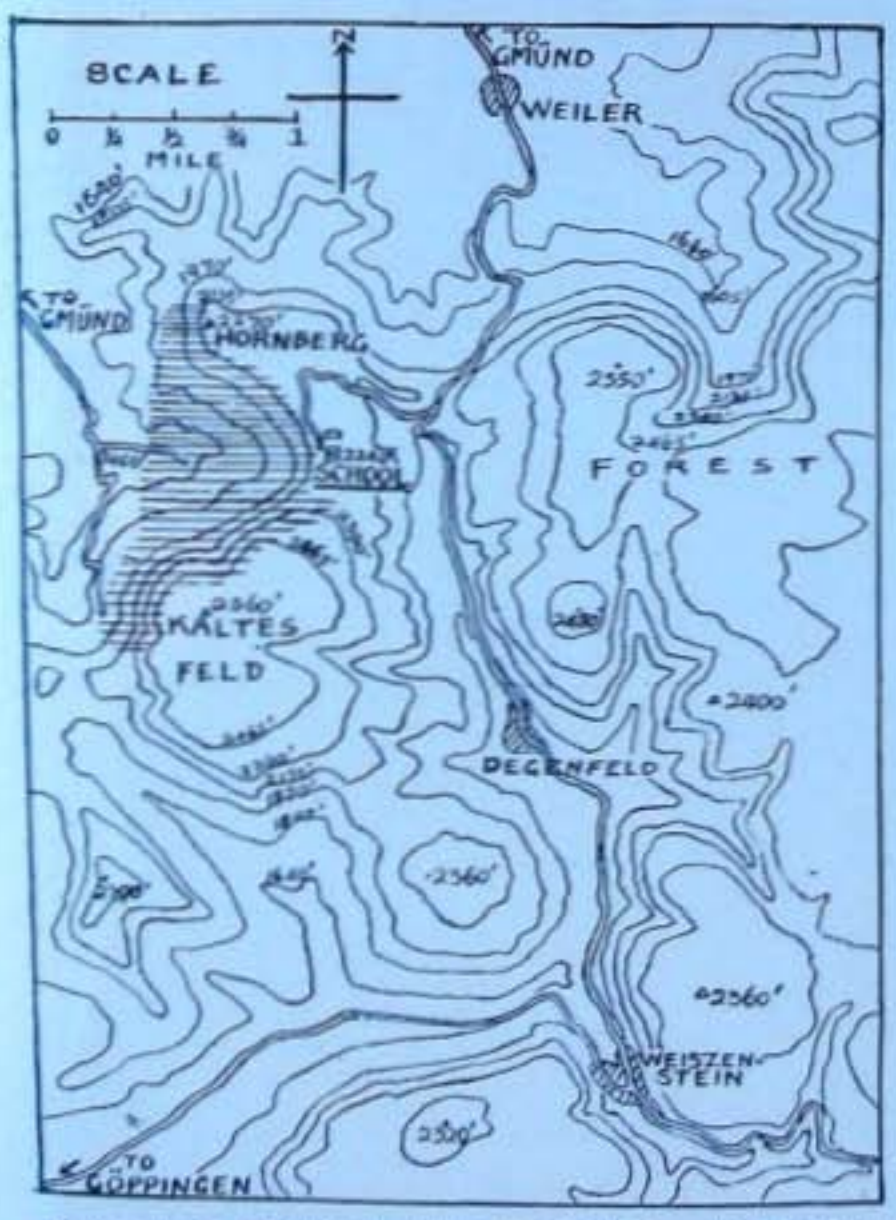
"On March 8th I started at 10 o'clock in the FLEDERMAUS for a duration flight and flew crabwise for two hours over the west slope of the Hornberg. At about 12 o'clock thermic activity became noticeable over the landscape, which was still partly covered with snow, and after 20 minutes I had reached the cloud base at a height of 800m. (2,600 ft.). As I wanted, whatever happened, to achieve 1,000 metres above the start, I went on circling up into the dark snow cloud. Speed indicator and window became snowed up in a few seconds, but the compass turned at an even rate and for 6 minutes the variometer steadily showed between 2 and 4 metres per second rise. I was thinking to myself how simple it was to fly inside a cloud without a turn indicator, when all at once things became unpleasant. Chocolate fell about in the cockpit and thick hail drummed on the wings. Conditions became jumpy, and, on pulling the stick back slightly, I thought I was going to be pushed through the seat. Presumably the machine had got into too tight a right-handed turn, so I tried to bring it more level. In doing so I probably kept the left wing-tip rudder pushed out for too long, for the compass now turned steadily in the opposite direction. The variometer showed minus 5, but I was glad when, as a result, I soon came out of that witches' cauldron. There were two long-drawn-out minutes to go through before I finally caught sight of the rocks of the Rosenstein through the FLEDERMAUS'S window as it lay in a steep turn. The barograph showed that, in the course of the previous 8 minutes, I had won 2,600 feet in height and then lost 1,600 feet again. As I did not wish to go back into the clouds without a turn indicator, I flew along between the towering cumulus back to the Hornberg. There I continued the flight until both thermals and wind had died out, and the third of the requirements for the 'Silver C' had been fulfilled with a duration of 6 hours 47 minutes."

The published barograph record of the flight shows in a striking way the effect of the onset of thermal activity about noon. Till then, the tracing keeps steadily between 200 and 300 metres. There is then a rapid ascent in 4 minutes to 500m., a pause of 15 minutes, then a climb to 1,600 metres (5,250 ft.) in 7 minutes. After the resumption of slope soaring the tracing shows two more peaks, at 1,050 and 1,250 m., and it varies continuously in height, in marked contrast to the first two hours of the record. Upper air observations at Darmstadt at 7 a.m. that day show that the ground temperature was the same (33 deg. F.) as that at 2,600 feet, the height of the Hornberg summit, so it is no wonder that the ground took some time to warm up sufficiently to produce thermal currents. Above that level there was an average lapse rate of 4½ deg. per 1,000 feet up to a height of 14,000 ft., which, being well above the adiabatic for saturated air, would allow cumulus clouds to grow rapidly once they were formed, with strong vertical currents in their insides. The barogram of Mr. Collins's flight at the same place will be reproduced in our next issue.

Herr Baur, by the way, had fulfilled the distance qualification for his "Silver C" on August 10th last year, during the Rhön meeting, when he flew the FLEDERMAUS 70 miles



The "Fledermaus" at last year's Rhön meeting. Above, the left wing-tip seen edge-on.



Map of the Hornberg and surroundings. The soaring

A NATIONAL ORGANISATION FOR SCOTLAND

Formation of the "Scottish Gliding Union."

[The following communication, which describes the efforts that are being made to build up a national centre for gliding and soaring in Scotland, with a permanent equipped site, has been sent by Mr. J. W. Gardner, who is acting as Hon. Secretary to the organisation.—Ed.]

Arrangements are now well forward for the formation of the long-considered Scottish National Gliding Club, and we are able to report that a general meeting of Scottish gliders and persons interested in the further development of the movement in Scotland is to be held in Glasgow on July 7th, when the new Club will be consummated.

The local Club effort in Scotland failed to meet with the success originally hoped for on account of the limited membership being unable to make provision for the supply of advanced equipment, resulting in a serious depletion of membership with its consequent reaction on Club finances, ultimately resulting in a cessation of activities.

A group of enthusiasts, drawn from the various Scottish Clubs, determined not to allow the movement to die out and so set themselves the task of considering what steps could be taken to revive interest and bring gliding back to life.

Investigation has shown that there was little, if any, hope of the local Clubs ever meeting with success on account of the small populations from which members had to be drawn and the low percentage of people really interested in gliding.

The rough nature of the ground in moorland and hillside was extremely sore on the machines, and breakages, which too often occurred, were generally serious. Ground has been a vexed question with all the Scottish Clubs. Where suitable terrain does exist a railway, roadway, or a line of high-power electric cables generally form an obstruction, while in the more remote areas permission for the use of ground has been extremely difficult to obtain on account of the shootings and the unfounded belief among the landowners that the operations of a club would disturb the birds and ultimately affect the letting of the shootings.

The solution to this and the many other problems appeared to be the formation of the various clubs into one National Unit and the concentration of their activities on one site—one for which they could pay a rent and acquire the right of free action and on which they could erect hangars and club-room accommodation.

A ground-selecting Committee was formed and instructed to endeavour to procure a suitable site for primary and advanced flying, equidistant from Glasgow and Edinburgh (which promise to be the main supporting areas) and within comfortable distance of Falkirk, Stirling and Crieff.

Many hill and lowland sites have been visited by this Committee and quite a number of these are thought to be suitable, but they have decided to leave the selection of the ground over until the new Club has been formed, so that the members might be able to voice their opinions regarding the location of the ground. One of the sites, extending to about six square miles and situated in the Kilsyth Hills, in mid-Scotland, has been tested out and found to be very suitable for soaring, but the ground is rather rugged for primary work. This is a much favoured site, for the hillside rises by easy stages to over 2,000 feet and a near-by roadway rises to about half that height. Should this ultimately be selected it will be necessary to secure a large, flat field and adopt auto-towing for primary instruction—a suggestion which appears to meet with general approval.

The Hon. Alan Boyle, president of the Glasgow Gliding Club, has been ceaseless in his efforts to resuscitate Scottish activities and he has been supported by a very willing band of helpers drawn from his own and every other Club in Scotland.

It is hoped that there will be a large attendance at the Glasgow meeting on July 7th and that the membership of the new Club will be sufficiently strong to enable the very elaborate scheme that has been drawn up to be put into operation.

All the local Scottish Clubs have agreed to contribute their equipment to the Union and the value of this joint stock, at cost, is about £1,500. However, many of the machines are of an obsolete type—or at least not suitable for auto-tow work, and so it is estimated that to equip the Club sufficiently well and to allow for it being run under assured progressive lines a further £1,000 will have to be found. It is doubtful if this sum can be raised by the members, but it is hoped that some financial assistance will be offered by well-wishers of the new National Scottish Club.

All wishing to join the Scottish Club or in any way desiring to assist in its success should communicate with the President, Hon. Alan Boyle, The Craig, Fairlie, or with Mr. J. W. Gardner, "Journal" Office, Alloa, the interim Hon. Secretary.

GOOD-BYE TO ALL THAT.



The Central Scotland Air Yachting Club's Air Yacht, hitherto that country's most notable contribution to the progress of motorless flight. All success to the newly-formed Scottish Gliding Union, which intends to get really moving at last.

IRISH GLIDING ASSOCIATION FORMED.

In response to an invitation issued through the press by Mr. T. P. Bourke, of 41 Aungier St., Dublin, a number of enthusiasts turned up at his address on June 8th and held a meeting at which it was decided to form an Irish Gliding Association. Lady Heath, who in a speech said the Country was eminently suited to the sport, was elected President, and the Lord Mayor of Dublin Patron. Among the Vice-presidents elected were Col. Fitzmaurice, Mr. Bourke, Major Caralet and Mr. H. R. Evans, who was stated to have built the first glider in the Country 25 years ago.

The meeting then proceeded to form a National Gliding Club, with Mr. T. P. Bourke as President. Among the vice-presidents of the Club is Mr. W. J. Ebrill, who is stated to have been a member of a gliding club in Germany.

Mr. Michael J. Doyle, former Aeronautical Engineer to the Free State Army Air Corps, gave a lecture in May to the Junior National Aviation Society at Dublin, at which he stated that there were four separate groups at present build-

As we go to press, the President of the N.G.C. writes that the Club desire to express their sympathy to the relatives of the late Mr. L. A. Desoutter and to the London Gliding Club.

WILL PYLONS BE ABOLISHED?

Soaring pilots who are bothered by the proximity of pylons carrying high tension cables may take what comfort they can from an article in the *Observer* by Capt. E. H. Robinson describing the opening of the Wood Lane research laboratories of Callender's Cable and Construction Co. He writes:

"As regards the subject of the underground as opposed to the overhead cable in the distribution of electricity, the general opinion amongst a large section of cable workers is that pylons and the overhead distribution system must ultimately disappear, though the existing equipment when lines carrying a pressure of 66,000 or 132,000 volts are required, answers its purpose for the moment. The rapid extension of air travel will call for the clearing away of overhead wires very soon, even if there is not an outcry due to one or two alarming fatalities at night time or in foggy weather. Overhead lines, too, are exposed to the weather. This winter there was a time when a considerable portion of the grid system was cut out owing to the action of fog charged with salty vapour. Underground cables would remove these difficulties and dangers. Unfortunately there is a great deal of work to be done before they can be manufactured in a way that will make them suitable for the highest voltage systems.

. . When required to carry current at high voltages gas may generate within the cable, the resistance of the paper winding to electric tension is then weakened and the cable breaks down. To find a way to prevent these faults is one of the many jobs being done in the new Callender laboratories."

WORTH COMPETING FOR



The "David Dent Cup," which has been presented by Mrs. D. F. Dent to the London Gliding Club in memory of her husband. It is to be awarded annually for the most meritorious gliding performance by a Club member each year.

START WITH THE CHILDREN

By C. T. Cuss.

All praise to the stout hearts which have undertaken the provision of a school at Sutton Bank. To make that school prosper, parents, nursemaids and governesses should teach the children during sea-side holidays to make sand scoops with streamlined bases and tipped to secure a high upwind velocity.

Prizes should be awarded for the greatest weight of pebbles lifted for "A," "B" or "C" duration, by means of, say, 18-ins. diameter of fabric anchored by lines, parachute fashion, at a favourable point to secure the maximum lift for any given set of circumstances.

What joy for the children and their instructors! What coveted prizes and certificates—the juveniles' "A," "B" or "C." On returning home to the chalk hills of Wiltshire (which Oxford and Norfolk would pay much to get) they would drive tractors and streamline and tip them in places to create more schools nearer home.

Instead of this, we find the parents indulging in the antediluvian custom of building sand castles, kings of castles and moats which belonged to the period when William Tell immortalised the apple by dividing it with an arrow on the head of his son. When children play the wind scoop lift, they will soar above the hills when they grow up.

In the meantime, what a trade will spring up for one who is alert enough to produce and market a standard parachute type lift, with anchor and pocket to carry the pebbles, and spring balance to test the weight lifted.

SUGGESTED NEW CLUBS.

The *Kentish Independent* asks whether anyone is prepared to make a start in forming a Woolwich Gliding Club, and says that all that is required is a hillside site and a glider. But Shooter's Hill, the only real hill near, is now pretty well built up where it isn't wooded, and as for the country round, the North Kent Club was unable to find a landlord willing for his ground to be used.

A correspondent of the *Grimsby Evening Telegraph*, in suggesting the formation of a local club, alleges the existence of a Lincoln Gliding Club and a North Lindsey Gliding Club, Scunthorpe. We have never heard of these clubs before, and would be interested to know something about them, if any.

AN AUSTRALIAN RECORD.

The *British Australian* reports that on March 25th Mr. D. Milne, of the Southport (Queensland) Gliding and Flying Club, flew a primary glider for 1 hr. 55 mins. and travelled a distance of 45 miles. If this were the distance from starting to landing place, it would be an amazing feat, but without further evidence we are inclined to believe that the pilot beat to and fro along a ridge and that 45 miles was the sum of all the beats. He is reported to have ended the flight by getting "caught in a whirlwind" and landing in a tree at Big Burleigh. The map shows Southport and Burleigh to be both on the coast, 12 miles apart. Burleigh is at the foot of Macpherson's range where it hits the sea, but Southport is apparently in flat country.

The pilot beat his previous record in the same glider by 55 minutes, and is stated to have surpassed by 10 minutes the world's record for a primary machine established at Mt. Elephart by Rice Oxley about three years ago.

THE "GRUNE POST."

The German Sunday journal *Grüne Post* has, according to *The Times*, been suppressed for three months as from the end of April.

The *Grüne Post* has always been a great friend to gliding and soaring in Germany. It was to win a *Grüne Post* prize that R. Kronfeld did the first soaring flight of over 100 kilometres in 1929. The journal has helped gliding in many other ways by offering prizes, etc., and last year it offered drawings and instructions free, to gliding enthusiasts of German nationality or race, of an excellent-looking all-purpose glider designed specially by Lippisch—easily constructed and suitable for primary work, soaring and even aero-towing.

Recently Dr. Goebbels, the Propaganda Minister, complained of the dull uniformity of the press now that it is no longer free, and suggested as a remedy, that a certain amount of criticism should be indulged in. The *Grüne Post* appears to have taken the hint "not wisely but too well."

MASS PRODUCED GLIDERS IN AUSTRIA

According to a press report, mass production of gliders has begun in Austria "to help in promoting air-mindedness. Hitherto, owing to the lack of skilled labour, it has not been possible to produce gliders in Austria."

GETTING AT THE SCIENTISTS.

With one or two notable exceptions, the scientific world has failed to take the slightest interest in the doings of those who practice the art of soaring flight. This attitude is only too well reflected in the pages of *Nature*, our foremost scientific journal with its world-wide reputation and circulation. When Prof. Georgii gave his famous lecture to the Royal Aeronautical Society 4½ years ago, the summary of it in *Nature* treated the whole busines as if its only object was to inculcate air-mindedness into German youth, and the great meteorological significance of it all was almost ignored.

Last year, however, Mr. Collins's thermal flights at Haish stimulted two well-known meteorologists to write to *Nature* about cumulus clouds, and we gave some extracts from their letters in our issue of last December. But it was evident that they were in ignorance of the valuable scientific work already done by the German gliding organization, and they have apparently made no attempt to get into touch with the gliding movement in this country.

In an effort to get the scientists interested at last, Mr. Collins wrote a letter to *Nature* which was published in the issue of May 5th. In it he described his flight in the RHONADLER from Dunstable to Rayleigh in Essex on April 22nd, giving in particular detail his method of gaining height in thermal currents and of going from cloud to cloud. He concluded his letter with the appeal :—

"Perhaps meteorologists could tell us if a sensitive thermometer would be useful in detecting rising air and also indicate, generally, how sailplane pilots can assist the science of meteorology."

Up to the present this bait has failed to make a catch, and the only letter in reply has been one published on June 9th from Sir Gilbert Walker, Professor of Meteorology at the Imperial College of Science, who, as our readers well know, has been active in the gliding movement already for many years. In the course of it he replies to Mr. Collins as follows :—

"To make satisfactory measurements of temperature and humidity inside and outside clouds by carrying a meteorograph on an aeroplane is difficult, because the instruments at present made are not nearly rapid enough in their responses to record features lasting about a second; and in Germany they have developed a scheme whereby the more slowly moving sailplane carries the self-recording apparatus and is towed by an aeroplane to the region where observations are required, because the demands for rapidity in the meteorograph will then be less severe.

"In the absence of a special institution devoted to these purposes, measurements of the variations of temperature and humidity are difficult; but information of value to the gliding movement as well as to meteorology could be got by systematic measurements, or careful estimates, of the vertical air movements in the neighbourhood of clouds of the different types, especially if the type were defined by the use of a camera. Thus on March 18, the day when Mr. Wills, Mr. Collins and Mr. Humphries all made long flights, some of the verbal descriptions that I heard indicated line-squalls; but the photographs and the account given in THE SAILPLANE AND GLIDER of April show, I think conclusively, that the clouds belonged in general either to the type that has been classed as 'longitudinal' or to the 'rectangular' type. The photograph on p. 52 of that issue, which illustrates the 'streets of clouds' utilised by the pilots, shows very clearly the spiral form that is characteristic of longitudinal cells; it suggests also that the maximum lift would not be immediately under the axis of the spiral.

"My impression, derived solely from theoretical considerations, is that under such clouds the up-currents would not usually be strong; but the formation of soft hail and the shapes in the photographs indicate that on that day the ascent was fairly rapid—in fact, some at least of the clouds were approximating to cumulo-nimbus. It will be interesting to see whether the development of convection in these types is stronger in summer than in spring."



The "Sailplane" photograph referred to by Sir. G. Walker in his letter to "Nature" as showing a spiral form. The suggestion of a horizontal spiral can be got specially well by drawing an imaginary line along the under edge of the right-hand cloud and up over the top surface of its neighbour. Real cumulus clouds in line are usually separate.

MR. L. A. DESOUTTER FATALLY INJURED.

We have to record with deep regret the death of Mr. Louis A. Desoutter, of the London Gliding Club, as a result of injuries received in a gliding accident on June 17th.

Mr. Desoutter, who was Instructor for the day, was making a first test-flight on the primary instruction DAGLING. Just as it left the ground the front left flying wire gave way, and the resulting increased incidence on the wing caused it to collapse. The machine came down on its side from a height of only a few feet, but Mr. Desoutter, in trying to break the fall, fractured his left forearm. This was at first thought to be his only injury, apart from bruises and shock, but, after admission to Finchley Memorial Hospital, he was found to be suffering from severe internal injuries, from the effects of which he unfortunately died on June 23rd.

It is thought that the flying wire may have been weakened at one point as a result of a previous rough landing, but, as it broke at the bottom end inside the ferrule, previous inspection would not have revealed the fault, if any. This type of rigging for primary machines has been in use in Germany for over 10 years, and in practically all other countries where gliding is taught, yet such a failure is not known to have occurred before.

We offer our sincere sympathy, and that of our readers, to Mr. Desoutter's family, and to the London Gliding Club, who have lost one of their very best members in every sense of the term. This is the first serious accident to have taken place on the Club's ground in the 4½ years of its existence.

A friend and fellow Club member of the late Mr. Desoutter writes as follows :—

Louis Adrien Desoutter was thirty-four years of age and the second youngest of a talented family of five sons and a daughter, born in England of French parents, assuming British nationality. He was associated with his brothers, Charles and Robert, in the firm of Desoutter Bros. Ltd., The Hyde, Hendon, originators and makers of metal artificial limbs, special pneumatic and electrical portable tools, and other light engineering products. Marcel Desoutter, pioneer aviator before the war, and constructor of the Desoutter monoplane, is another brother, and Rene Desoutter, also a pre-war pilot, is the eldest brother. As a practical engineer Louis Desoutter was of exceptional knowledge and skill.

He held a power pilot's "A" licence taken as a member of the London Aeroplane Club, then at Stag Lane, and had made numerous flights with his brother Charles in the latter's PUSS MOTH Monoplane.

Gliding immediately appealed to him and he was one of the first members of the London Gliding Club, quickly gaining his "C" certificate, and he served on the technical and general committees as well as being an instructor. Later he joined the British Gliding Association and became a member of the Council of that Body.

A little over a year ago he decided to build himself a high efficiency glider, and chose the GRUNAU BABY, largely because the dimensions enabled him to build the fuselage in his dining room and the wings just fitted into his lounge. The machine was seventy-five per cent. completed by the time of his tragic death. The fuselage, quite finished, is a most beautiful piece of craftsmanship, and the partly assembled wings are similarly of exhibition quality and finish. Whoever completes the machine will find it hard to maintain the same high standard of workmanship.

I have known Louis personally for twenty-five years, and can most truthfully say I never knew him to do a mean act, or even say an unkind thing. His two sons, Michael, aged seven, and Philip, aged five, adored him, and one of their greatest treats was to be taken to the Gliding Club. On these occasions it was noticed that Louis did not often fly. Only after a long while was it discovered that he considered it would be unfair to fly on those occasions as he would have to go home early with the children, and would not be present to assist in putting the machine away. That is the sort of fellow he was. When lying in hospital he expressed the hope that the cause of the accident would be taken as a thorough lesson and steps taken to modify the designs so as to make a recurrence impossible.

All will sympathise most deeply with his widow, with whom he shared an ideal companionship.

CORRESPONDENCE

WANTED—INTENSIVE TRAINING.

Sir,

May I seek the hospitality of your columns to voice my wants in the hope that they are also those of a sufficient number of other people to make it possible to secure satisfaction of them.

In a sentence I want an intensive training course where I can spend a month or six weeks of my holidays in *daily* practice of gliding.

I live too far away from any existing club to attend at week-end meetings throughout the year and there doesn't seem to be any chance of starting a club in this district until I myself have learnt the noble art of soaring.

Be it noted that I'm not out to learn "on the cheap" but "on the quick." If there is any club which is likely to be able to offer instruction daily, weather permitting, during the holidays I'd willingly join it at the ordinary annual rates. But four week-ends a year are hardly value for money, and what is far worse, wouldn't enable one to learn to soar for umpteen years.

Surely there must be others in a like position—people who for one reason or another cannot attend at week-ends throughout the year but would like a concentrated month of gliding (and soaring if we get as far). If all such who read these lines would write to me I could act as focus and if there are enough of us no doubt something could be done.

L. J. HUDLESTON,
"Greystoke," Llandre, Cardiganshire.

[In England, as far as we know, the only chance of getting continuous training during the summer holidays is at the London Gliding Club (Dunstable Downs, Beds., reached by rail-and-bus service to Whipsnade from St. Pancras), though it is possible that other clubs are contemplating holding camps.

At the **London Gliding Club** (Secretary: H. O. Davies, 13 Victoria St., S.W.1), one can become a "Colonial Member" (without being a real Colonial) for 2 guineas; this covers a period of 6 months and so enables one to attend one or more camps in the year. In addition there is a flying fee of 3s. per day on each day when flying is actually done, and, during the camp, an Instructor's Fee of about 10s. 6d. per week per pupil. A fortnight's camp is to begin on July 14th, in which there are 5 vacancies at the time of writing. Camps for August are not yet definitely fixed, but it is usually possible for any number of persons not less than 6 to obtain the services of an instructor for any period they like to arrange. For instance, we understand that a camp in the second half of August is almost a certainty, and others are not unlikely. Write to the Secretary.

At **Sutton Bank** there will be flying at week-ends, but up to the present no special instruction camp has been arranged.

For those who fancy a holiday abroad combined with gliding instruction there are several gliding schools in Germany, the home of soaring flight, where fees are moderate and living is cheap. When applying for particulars, one writes to the *Leitung der Segelfliegerschule* (Directorate of the gliding school). The following are known to take foreigners:—

Wasserkuppe, Post Gersfeld, Rhön, Germany. 3,000 feet up; 'bus service from rail terminus at Gersfeld, which is on a branch line from Fulda, between Cassel and Frankfurt. Instruction usually recommences after the Annual Competitions, which end on August 5th. An associated aero-towing school is at Griesheim (Darmstadt).

Rossitten, Kurische Nehrung, Ostpreussen (East Prussia). Reached by motor vessel from Cranz, near Königsberg. It is a long way off, but the soft sand is eminently suited to elementary instruction. Training up to "A" and "B" stage is carried on in summer, but soaring winds are almost confined to spring and autumn.

Grunau, Riesengebirge, Schlesien (Silesia). Undertakes all types of gliding and soaring training. We don't know how to get there, but it is near Hirschberg.

Hornberg, Schwäb. Gmünd, Württemberg. Undertakes advanced training, suitable for "B" pilots ready to try for their "C," and "C" pilots who want to improve their technique. Aero-towing, cloud flying and aerobatics. Wolf Hirth lives there. Nearest stations, Gmünd and Weissenstein.

As our correspondent surmises, there must be many people in his predicament, and Clubs who are contemplating holding training camps are advised to notify both the British Gliding Association and THE SAILPLANE, so that not only can the information be published, but correspondents who are in a hurry can get particulars without delay.—ED.]

A GLIDING AND SOARING HOLIDAY IN THE LAKE DISTRICT.

Sir,

Brig. Gen. Spedding has very kindly placed "Lonscale" at my disposal *free* for the benefit of gliders who would like to soar or glide in the Lake District this Summer.

The possibilities of the surrounding district are enormous. "Lonscale" is 730 feet above sea level; the col between Skiddaw and Latrigg is half a mile due west at 1,000 ft., and the top of Latrigg a quarter of a mile south of the col at 1,203 ft. The col and Latrigg are grass-covered at the top and very suitable for launching and landing, and there are cart roads passable for cars and trailers in dry weather; a pony is also available. Many other sites are within easy reach, also much ground suitable for primaries.

Furniture has to be sent up, also someone to cook, etc., therefore I would be extremely obliged *if intending visitors would write to me as early as possible giving the dates which would suit them* so that I can make arrangements. The cost is expected to be very low. But unless sufficient support is forthcoming it will not be worth while opening up the house.

ERIK T. W. ADDYMAN,
The White House, Starbeck, Harrogate.

A RESIGNATION.

Mrs. M. A. Cairnes asks us to say that she has resigned from the office of Vice-President and from Membership of the Wilts. Aviation and Glider Club.

THE SOUTH DOWNS PRESERVATION BILL.

The fate of this Bill, which at the time of going to press is being considered by a Select Committee of the House of Lords, will have much influence on the future of gliding and soaring over the South Downs, one of the finest areas for the purpose in this Country. Gliding and soaring come into the category of the activities which the promoters of the Bill seek to prohibit in the area to be scheduled. It may be remembered that Mr. Wills, after doing a fine soaring flight in his SCUD II over Beachy Head last autumn, wrote (at the request of the local policeman) to the Eastbourne Downs Preservation Committee to ask if he could do it again, and got a reply that they were "unable to permit gliding on the downs." (We understand that it is not proposed to prevent seagulls taking off from the Downs in order to indulge in what is considered such an offensive pastime.)

Air Commodore J. A. Chamier, Secretary of the Air League of the British Empire, gave evidence before the said Select Committee on June 29th, and did what he could to stress the claims of Gliding and Soaring. He also pointed out that if the Bill passed Brighton would be surrounded by country in which any development of aviation would be barred.

The B.G.A. has deputed Capt. Latimer-Needham to take all possible steps to combat the Bill as far as it affects gliding, and on June 25th *The Times* published the following letter from him, writing as Vice-President of the British Gliding Association:—

"May I be permitted, on behalf of the Council of the British Gliding Association, to draw attention to a most harmful aspect of the South Downs Preservation Bill, as at present framed; admirable though the main intention of the Bill may be. I refer to the clause prohibiting the flying of any form of aircraft. The South Downs provide one of the finest and most suitably located soaring sites in this country, and the exclusion of their use would undoubtedly constitute an irreparable loss to the gliding movement. Space does not allow me to expatiate the importance of soaring flight as an effective method of increasing the air-mindedness of a nation, of teaching the art of flying to those who cannot afford expensive power craft, as an aid to meteorology, and, lastly, for "improving the breed" of aircraft generally. Already we lag behind other and more farseeing nations in this important branch of aviation. It was on the South Downs, in 1922, that a Frenchman, Maneyrol, first showed us how to remain in the air in continuous soaring flight, and again, in 1930, the Austrian pilot, Kronfeld, made a 60-mile sailing flight from Lewes to Portsmouth. Neither can it be claimed that gliding is likely to spoil the amenities of the Downs. Soaring craft are completely noiseless, are beautiful and inspiring in flight, and cannot be looked upon in any way as destroyers of the peace and beauty of the countryside. At present the movement is struggling for existence, and any such unnecessary restriction at this juncture is to be deplored and must be avoided"

A PLEA FOR THE BIPLANE.

Sir,

I wonder how many people besides myself stop and look at some hill unexpectedly come upon, and long for a glider and facilities to try its soaring possibilities.

Permission to fly over various properties is usually refused to clubs or bodies of numerous persons, because of the attraction caused by perpetuating the performance every week-end. I believe that permission would readily be granted in many cases to anyone who in a quiet way rolled up at the chosen estate and said: "Do you mind me trying my glider on your hill for a short while?"

The question now arises, is the glider existant for such a purpose? The nearest thing I know of is the SCUD, with its neat trailer. This outfit, when packed ready for travelling, occupies a space approximately twice the size of its towing car. No, even this will not do.

I believe there are many people like myself to whom a little gentle slope-soaring is sufficient to appease their thirst. What I am about to propose will not appeal to the merchant who desires to fly at altitudes in the thousands, and to such distances that they are dependent on other people getting them back.

The biplane, to my mind, is the solution of this problem. If I remember correctly, the SCUD I. had a span of about 25 feet and actually did some very useful soaring in the hands of Mole. Suppose a biplane were designed with a span of about 18-20 feet, it would pack up into a space of 9-10 feet and be quite suitable for a small trailer, behind an "Austin Seven." The fuselage could consist of a nacelle and tail booms. The empennage need have no fixed surfaces but consist, like the SCUD, of three interchangeable surfaces. Why could not the nacelle be folding like the many good examples of collapsible canoe? The rear portion might be inflated fabric.

Owing to the main stresses being purely tension and compression, unlike bending, in the case of the cantilever monoplane, the complete machine could be extremely light. This lightness of bi-planes was very well demonstrated by some of the very early gliders at the beginning of the century. Some of these weighed in the region of only 50 lbs.

I know many experts will grin at the suggestion and talk of such things as "induced drag," etc. There is an old saying: "The proof of the pudding is in the eating." Many experts have grinned in the past, only to take on an expression of surprise later. Did not the knowing ones grin at Maneyrol, when he appeared at Itford Hill in 1922 with his "tandem"? This machine had four wing-tips to cause induced drag in plenty, besides many other supposed faults. When he took the air, the real fun started. Not only did he beat all machines present, but put up a world's record.

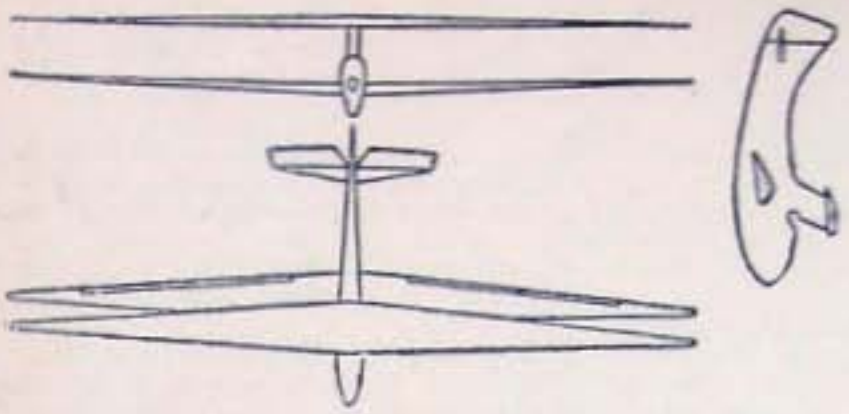
Again, in 1926, at the "Daily Mail" Light Aeroplane trials, the Hawker CYGNET was referred to in the technical press as the "ugly duckling," in spite of its being one of the prettiest biplanes I have seen. There were two of these machines entered, one of which was entered by a band of impecunious enthusiasts without any backing other than their own keenness. These two machines were in competition with such highly efficient monoplanes as the BRISTOL BROWNIE, PARNALL PIXIE, WEE BEE, etc., all direct developments of the soaring sailplane, and engined with Bristol "Cherubs" of 28 h.p. The competition, which extended over a week and covered 2,000 miles, was guaged on a petrol-consumption basis, i.e., performance purely. Strangely, the "ugly ducklings" took 1st and 2nd places. Many good glider flights have been put up on biplanes. Did not Fokker decide on a biplane when he entered the glider competitions in 1922?

My suggested design would include tapered wings, thus reducing induced drag. Would not the inertia forces in turning, so noticeable on large-span sailplanes, be reduced to a minimum? And what a narrow band of lift one could utilize, which a larger span machine would slip off. What say some of our No. 9 Hats? I should like to see replies to this, no matter how rude, by such people as Mr. Scott-Hall, Captain Needham, Mr. Baynes, etc.

E. BRAME.

[We have long been interested in the idea of a small biplane glider possessing the advantages of light weight and extreme portability. But the type we would like to see developed is a swept-back tailless design. Such a machine could be neatly folded up without detaching any of its parts, merely by undoing about four turnbuckles; the space it would then occupy would be: length, the semi-span plus the wing-gap; breadth, the wing-chord; thickness, four times the wing thickness plus that of the two rudders, the latter being situated between the upper and lower wing-tips.

Fokker brought two biplane gliders to the Itford meeting of 1922, a single-seater and a two-seater, and in the latter a world's duration record for passenger-carrying was set up.



The Bonnet biplane of 1932, designed for high-performance soaring.

(The "Daily Mail" Light Aeroplane Trials, by the way, were held in 1923 for single-seaters and 1924 for two-seaters.) The pioneer soaring pilot Martens, who ran the first gliding school on the Wasserkuppe, brought out a biplane training glider ten years ago, but we have no record of any German biplane glider design later than 1927.

An interesting French sailplane, designed on high-performance lines (except for the fact that it was a biplane), was described in *Flugsport* of Aug. 3rd, 1932. Both planes were pure cantilever, equal in size, and uniformly tapered to the almost pointed tips; only the lower plane had ailerons, but along nearly its whole span. Dimensions were: span, 43.6 ft.; maximum chord, 3.3 ft.; area, 158 sq. ft.; length, 17.7 ft.; weight empty, 236 lbs.; wing loading, 2.54 lbs. per sq. ft.; estimated gliding angle, 1 in 23. The machine was built by Pierre Bonnet at Bordeaux, and was intended specially for thermic flying. It was reported to have been already finished and flown, and to possess good manœuvrability, but since then nothing further has apparently been heard of it.

It will be objected, of course, that a biplane glider is less efficient than a monoplane, but no sailplane, for that matter, is as efficient as it might be, since every design is a compromise between mutually exclusive ideals, and in each case the particular factors compromised depend upon the purpose for which the machine was designed.—ED.]

IT LOOKS INVITING.



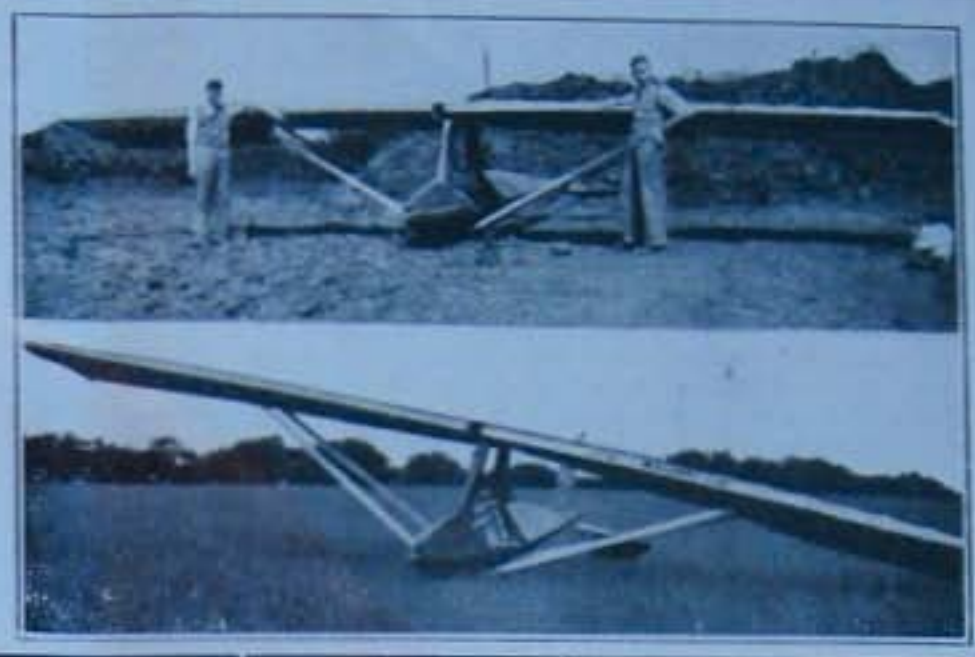
Preparing for a flight by E. T. W. Addyman off the slopes of Skiddaw, whose summit can be seen on the left. Mr. Addyman has obtained free use of a farm house here during the summer, and invites soaring enthusiasts to bring their sailplanes along.

A CLUB FOR READING.

It is proposed to form a Gliding Club for Reading and District. As a result of a notice in the local paper, Mr. Clive H. Bohman, of 35, Church Road, Tilehurst, Reading, has had about two dozen replies from enthusiasts eager to make a start. Permission has been obtained to use a site on the Berkshire Downs near Goring, just past Streatly, 11 miles from Reading; it rises to about 600 ft. above the Thames and has a slope of about 1 in 5.

A visit to Dunstable is shortly being arranged for all prospective members.

NEWS FROM THE CLUBS.



A glider of 30 ft. span, built by two members of the Bramingham (Luton) Gliding Club, both aged 16. It has flown sucessfully, they say, and now they are constructing a two-seater.

LONDON GLIDING CLUB.

Sunday, June 10th.—Ground-hops all day on both the open and the closed (nacelled) DAGLINGS. The BLUE WREN was ground-hopped by Grice, Richardson and its owner for the first time. The POPPENHAUSEN was kept busy with dual instruction on the winch cable, with the instructor in the back seat and the machine never getting more than 20 feet up. In the cicrumstances nobody envied the instructor, who was Maj. Petre, with Dewsbery as relief. The skeleton of Hiscox's new "Super-Hols" was assembled in the open for the first time, and its fine workmanship exposed to the world's admiring gaze.

Sunday, June 17th.—A light wind up the hill, which became a calm later. While it blew, the FALCON was soared by Smith and Slater (both of Derby) and Richardson. Hedges flew it down. KASSEL 20 was flown down 3 times by Ivanoff and once by Dr. Slater; Ivanoff, who has just taken a share in it, having first done 3 ground-hops at the bottom to get it's "feel."

The open DAGLING was brought out for instruction, but was put out of action on its first flight, through no fault of the pilot, L. A. Desoutter. It is characteristic of Mr. Desoutter that he met with his accident in the service of others, he being instructor for the day and so making the first test flight. The circumstances are described elsewhere in this issue.

Midsummer Camp, June 15th to July 1st.—Starting from such an unfortunate beginning, this turned out finally to be the most successful camp the Club has known. (The Ivinghoe Camp of 1930 possibly excepted, though even that could not boast such all-round progress in its elementary group's flying abilities.) Nearly the whole of the first week was given up to putting together another primary instruction machine out of the several portions available. Superhuman efforts got it into flying shape by Friday the 22nd, when it was ground-hopped in the evening as soon as a westerly gale had blown itself out.

Flying now began with a vengeance, and by the following week most of the Camp was flying off the top. During this second week Baker, Dickins, Pringle and Chalier got their "A" Certificates and did the two "forty-fives" towards the "B," Seth Smith and Miss Davidson each did their "A" and one "45", and A. N. Other his "A", while Curtis and O'Brien made stout but unsuccessful efforts to get their "C". Most of these hill-top flights were done on the HOLS DER TEUFEL, which this enterprising group (or most of it) had bought from Hiscox after forming a syndicate for the purpose.

During the camp, Richardson performed comfortably on the FALCON for 2½ hours on the 20th and 1¼ hours on the 27th, while Ivanoff and Dr. Slater turned up on the 20th and each did about 20 minutes in the KASSEL 20. Ivanoff soared it again for about half an hour on the 22nd, when Dr. Slater flew it down and Hedges flew the FALCON down.

On **Sunday, July 1st**, primary instruction went on all day, and the HOLS was carefully hopped by all its new owners; also by Humphries who, from a launch at the bottom, miraculously soared along at half the height of the hill till he reached the end of the club ground and had to turn away from it. Collins, now returned from Germany with an Aerobatic Certificate, lived up to it during a short flight off a winch launch; while Wills, during a temporary light air, tried, and allowed Nicholson to try, to soar the SCUD. The HOLS group finished the day by most of them flying their new

THE AIRCRAFT CLUB, HARROGATE.

Several of our members have been taking dual instruction on aeroplanes at Newton House, Aerodrome. The machines are a GIPSY MOTH and a MILES HAWK low wing monoplane, which is very pleasant to fly. The charge is 30s. per hour to flying members. Tickets obtainable from the Hon. Sec.

To all Glider Owners and Glider Clubs.—"Lonscale," a farm house on the slopes of Skiddaw in the Lake District, has been placed at the Secretary's disposal for the summer months. Several good launching places are easily accessible from it and every facility is being provided. He would like to hear from owners of gliders and sailplanes and their friends who would care to spend a holiday there. Write to Erik T. W. Addyman, The White House, Starbeck, Harrogate.

NEWCASTLE GLIDING CLUB.

It is reported that new club buildings are in course of erection at the Club's flying ground at Mootlaw, near Ryal. These are to include a hangar, clubroom and sleeping chalet. A new glider, now in Newcastle, will be towed to Mootlaw when the buildings are ready, and the one now there brought back for overhaul. The sailplane now being built may be ready by the late summer.

TEES-SIDE GLIDING CLUB.

A meeting of the Club was held at the Grand Hotel, Middlesbrough, on June 8th, and it was reported that a primary glider had been ordered from Messrs. Slingsby. Messrs. H. V. Barker, L. H. Barker and Thompson were appointed instructors, and the next few weeks is to be given to the selection of a site. The Club has 33 members. Inquiries should be addresed to Mr. H. P. Dean at the Grand Hotel, Middlesbrough.

It is also reported that the Middlesbrough Flying Club, formed four years ago, is being approached with a suggestion that the two clubs should unite.

COVENTRY TO GO GLIDING.

At a meeting of Coventry Aviation Group at Whitley aerodrome in the middle of June, it was decided to form a gliding section, the use of a glider having been obtained.



OFFICIAL NOTICES

COUNCIL MEETING.

The 59th Meeting of the Council of the British Gliding Association was held on Friday, June 15th, 1934, in the Library of the Royal Aeronautical Society. Present: Mr. Hardwick (Chairman), Capt. Latimer Needham, Mr. Whidborne (Vice-Presidents), Messrs. Wills, Bergel, Dessoutter, Sanguinetti, Reffell, Grice, Seaward, Slater, Sir G. Walker, Messrs. Lee, Culver, Capt. Stratton, Messrs. Haslam, Houlberg, Hiscox. In the absence of Mr. Waplington, Mr. Wills was appointed Acting Secretary for the meeting.

Among the business transacted was the following:—

Lapse-Rates on Sundays.—Sir Gilbert Walker put on record the correspondence which had taken place with various authorities in an endeavour to obtain lapse-rate readings on Sundays, but reported that his endeavours had unfortunately proved fruitless.

[We understand that each single aeroplane ascent for taking upper air observations on a Sunday would cost the taxpayers about £15, owing to the special arrangements necessary.—Ed.]

Mr. Nyborg's Sailplane.—It was resolved that, at the discretion of the Technical Committee, an experimental Certificate of Airworthiness be granted to this machine.

C's of A. and Club Sites.—It was resolved that no machine not carrying a Certificate of Airworthiness be in future permitted to fly on any Club site. Further suggestions regarding the enforcement of C's of A. were postponed pending the report of the Gorrell Committee.

"The Sailplane and Glider."—Mr. Wills reported that negotiations were proceeding with Mr. H. O. Davies with the object of his taking over THE SAILPLANE. Among the major points were: Mr. Davies was prepared to assume financial responsibility for the paper; Dr. Slater was to remain Editor; the paper was to remain the official organ of the B.G.A. It was resolved that Mr. Wills carry on the negotiations and report the result at the next meeting.

Rules Committee.—It was resolved that a Special General Meeting be called to discuss the recommendations of the Rules Committee, following a request signed by members representing more than one-tenth of the Members of the Association.

New Members.—The following were elected members of the B.G.A.: Messrs. H. Irwin, D. Delaney, R. Wagstaffe, G. Smith.

Secretaryship.—It was resolved that the Council notes the correspondence between the President of the Association and Mr. Waplington, and accepts with regret the latter's resignation. It was reported that Mr. W. W. Briscoe had kindly offered himself for this post, and he was duly appointed as Hon. Secretary of the Association.

South Downs Preservation Bill.—Captain Latimer Needham was empowered to take all possible steps on behalf of the Association and, in conjunction with the Air League, to combat the features in the above Bill inimical to Gliding.

First British "Silver C."—The Council recorded its congratulations to Mr. Collins on the attainment of the first British "Silver C"; also on his recent performances at the Hornberg.

Next Council Meeting.—The next meeting of the Council will be held at 7, Albemarle St., W.1., on Monday, July 16th, 1934, at 6 p.m.

SPECIAL GENERAL MEETING.

In accordance with a request signed by more than one-tenth of the members of the association on June 15th, 1934, a Special General Meeting of the Association will be held at the library of the Royal Aeronautical Society, 7, Albemarle St., W.1, on Monday, July 16th, 1934, at 6.30 p.m., to discuss the recommendations of the Rules Committee set up at the 4th Annual General Meeting of the Association.

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