

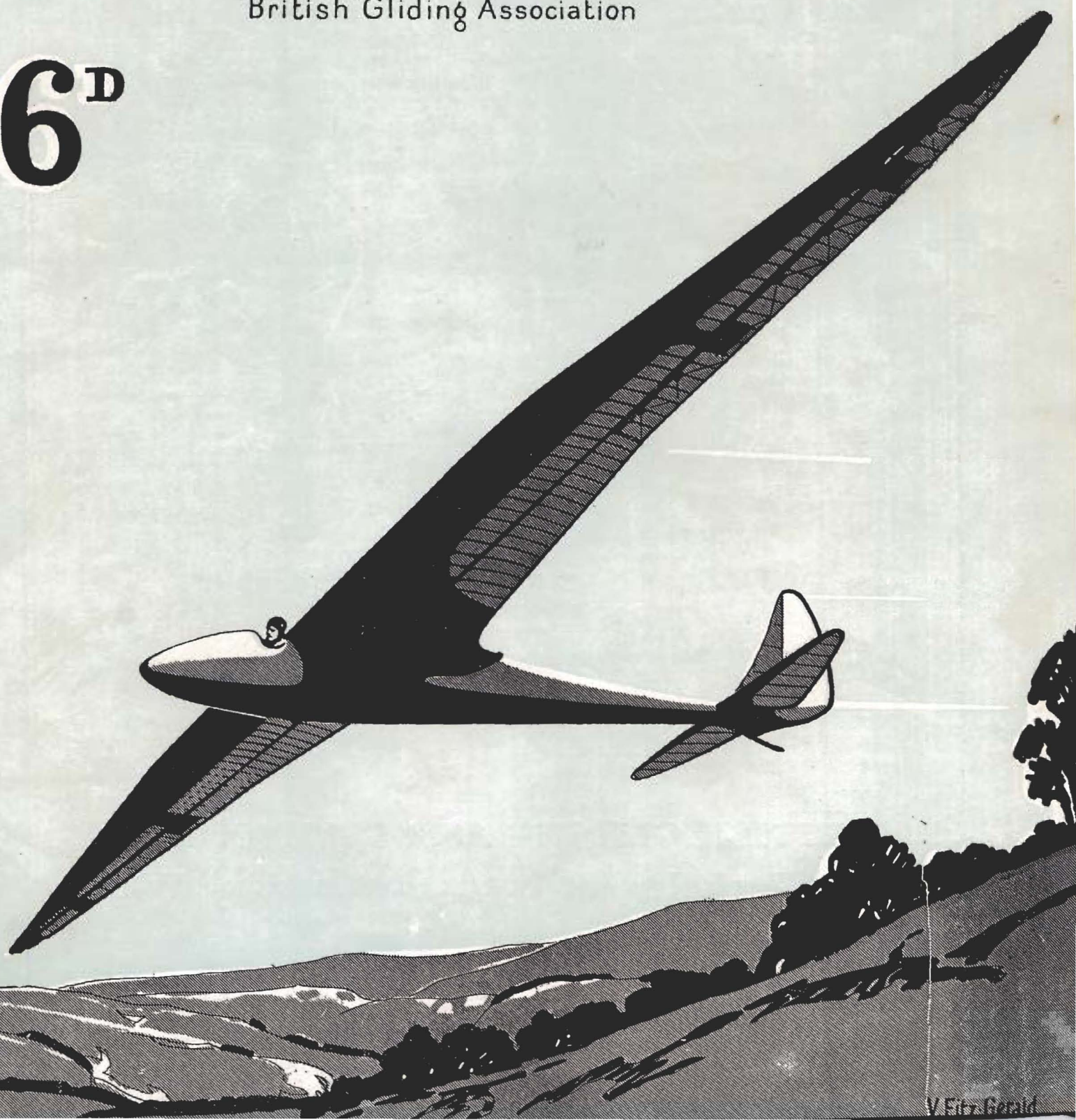
June 9th 1933.

Vol. 4, No. 11.

THE SAILPLANE & GLIDER

Official Organ of the
British Gliding Association

6^D



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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.

Editor: ALAN E. SLATER.

Editorial Offices: 43, CHANCERY LANE, W.C. 2.

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*The Offices of the SAILPLANE viewed from the historic
XVth Century gateway of Lincoln's Inn.*

EDITORIAL COMMENTS

See You at Huish.

No doubt plenty of people will be going to Huish. There will be plenty of room for them—on the ground. But there is also plenty of room in the air, so it is to be hoped that all those who actually fly will bring something to fly on, and fly it.

There is talk of meetings—council and committee meetings, perhaps even the proposed conference—being held at Huish. The more the merrier, but with one proviso: that no one shall be taken away from his flying to attend such meetings. We once heard a prominent member of the Gliding Movement express indignation because somebody chose to stay at the top of the hill and get on with his flying, rather than go down to the bottom and attend a meeting into which he had been co-opted. Those who arrange such meetings, whether official or unofficial, should remember the poor boobs (as we once called them) who actually go so far as to fly, and should fix the times accordingly.

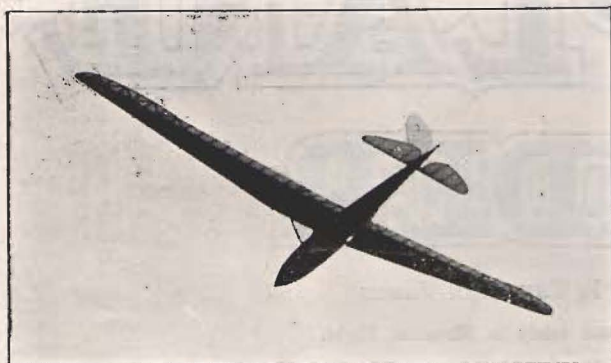
Class Divisions.

If a list of the better-known names in the Gliding Movement be examined, they will be found to fall into two classes: (a) those whose names appear in the Aviation "Who's Who," and (b) those who regularly fly gliders and sailplanes. These two classes meet far too seldom, and to that fact can be traced many of our troubles and misunderstandings. The Huish Competitions should give them the opportunity of meeting and getting to understand each other's point of view. Not that we would suggest that there is a hard and fast dividing line between the two categories. They even overlap slightly, as we were able to show when reviewing the "Who's Who." May that overlap increase!

The "Hang" Glider.

The article on "one-man gliding," which we publish in this issue, gives further discouragement to those who still hanker after a machine that they can fly all by themselves, when and where they choose, alone and in peace. But Lilienthal could do it, for all his ignorance of what is now known about flying. So we are still among the hankerers.

SOARING FLIGHT.



The "Scud II." at Dunstable,
piloted by G. M. Buxton.

Letters to a Son.

We have been lately laying ourselves open to the criticism (though no one has made it) that the attention given in this paper to the art of high-performance soaring is out of all proportion to the number of our readers who actually practice the art. But this is as it should be. The waggon, whatever its sinking-rate in still air, must be hitched to a star. The pilot who is satisfied if each of his flights is no worse than the last will never get anywhere. He must have dreams and visions, and every flight (and they are usually all too few) should represent a step further towards making those dreams come true.

But we have not forgotten the beginner. The writer of our new series is an instructor of experience, a soaring pilot of experience, and a power pilot of experience. Listen-in to what he has to say to his son. It will do you a lot of good.

THE B.G.A. COMPETITIONS.

The Meeting at Huish, near Marlborough, begins on June 15th. Arrangements for the instructional course, which is to continue throughout the meeting, are described in a letter from the Secretary of the B.G.A., which appears in our Correspondence column. Particulars will also be found therein of a Y.M.C.A. centre which is being set up, and which will provide meals, sleeping accommodation and other amenities at fixed charges.

GLIDING CERTIFICATES

The following gliding certificates were recently granted by the Royal Aero Club. The columns show respectively: No. of certificate, name, club, and date of qualifying flight.

"A" Certificates.

- 324 F. B. Christian, Bradford, April 18th.
- 325 G. L. Bell, London, April 15th.
- 326 Mrs. M. M. A. Cairnes, London, April 30th.
- 327 P. A. Wills, London, April 9th.
- 328 H. S. Gross, Furness, March 18th.
- 329 D. Todd, Furness, March 18th.
- 330 C. W. Jowitt, Bradford, April 2nd.
- 331 L. A. Alderson, Bradford, April 2nd.

"B" Certificates.

- 283 F. G. Enser, Staines, April 17th.
- 237 P. A. Wills, London, April 9th.
- 211 J. C. Redshaw, Furness, March 14th.
- 212 C. A. Britton, Furness, April 16th.

"C" Certificates.

- 249 P. H. Baster, Ulster, March 25th.

In addition to the three certificates mentioned in our last issue (p. 110), the following were obtained earlier in the year:

"A" Certificate.

- 323 R. A. Scott, London, February 12th.

"B" Certificates.

- 320 H. F. Hastwell, Bradford, February 12th.
- 252 G. P. Hebden, Imp. College, February 12th.
- 323 R. A. Scott, London, March 4th.

THE "SAILPLANE" COMPETITION.

Entrants for this Competition are asked to send an article of not less than 250 words, accompanied by one or more illustrations, which can be either drawings or photographs. The subject matter must be related to motorless flight. No part of the entry may have been published elsewhere.

Competitors should state that they are entering for the Competition, and give name, address, and gliding club (if any). These will not be published if so desired.

The best entry received during any one month will entitle the winner to receive THE SAILPLANE free for six months. In addition, the sender of any entry published, whether a winner or not, will receive two extra copies of the issue in which it is published.

The Editor's decision is final.

The prize for May is won by "Kentigern," for the article "Soaring Maps," published on page 102 of the issue of May 12th.

ON SLOTH, ONE OF THE SEVEN DEADLY SINS.

An Answer to "Skywriter."

(See Vol. IV., No. 9, page 98.)

Oh, hopeless, gutless sluggard, thou
Who hast let the wayward cow
Park her great bulk upon an aileron,
Then to amuse thyself with maps,
Leaving other worthy chaps
To mend the part she sat upon!
Chastised, indeed, the kine shall be,
But what shall be reserved for thee?
Ah, fragrant epithets we soon can find,
Severe indictments, kickings from behind.

H. C. W.

A TOW, A LOOP, AND A KISS.

Wiley Farner, the Swiss glider pilot who was towed across the Alps earlier in the year, recently carried out another long towed flight of 310 miles, from Zurich to Paris (Le Bourget). The towing aeroplane was flown by M. Gingloz, head of the Zurich aerodrome.

Farner had come to attend an air propaganda meeting on May 21st at St. Germain-en-Laye. There he gave an aerobatic display on his glider, including looping the loop. After landing, and before getting out of the cockpit, he was duly kissed by "Miss Paris" in the presence of the Press photographers.

What is the French for "another milestone"?

AN ORIGINAL DESIGN.

Three youths of Ickleford, S. Day, C. Etheridge and P. Etheridge, of ages between 16 and 20, have constructed a glider while attending evening classes at Pirton School (Herts. County Council). The design is by Mr. W. H. Etheridge, ex-R.A.F. instructor, now handcraft instructor at the school. The machine was built in six months; the woodwork is of silver spruce, and the metal fittings are also home-made. It is to be tried out at first on a gentle slope at West Mill, Ickleford; later it will be flown on a more ambitious site, possibly Wilbury Hill.

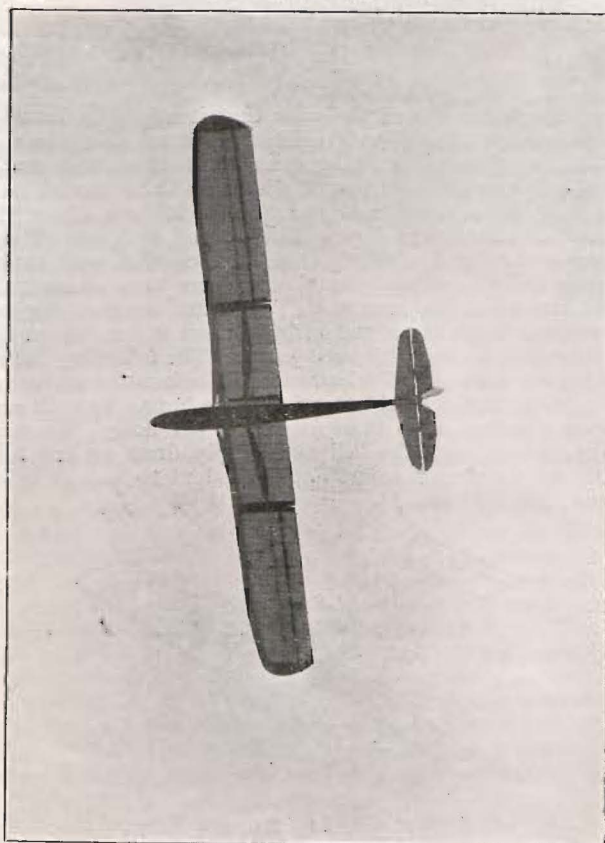
A photograph in the *Hertfordshire Express* shows the machine to be a parasol monoplane with a wing like a primary and a fuselage very like a SCUD—an odd-looking combination. The wing is supported near its centre on four metal struts, and has a skeleton *cabane* on top; there are landing and flying wires in addition. In other words, it is *not* a "Scud type machine"!

THE LATE MR. C. H. LOWE-WYLDE.

The Directors of B.A.C., Ltd., wish to thank their many friends who have sent messages of sympathy following the recent fatal accident to their friend and colleague, C. H. Lowe-Wylde.

They are answering in this way as so many letters have been received as to make individual acknowledgment almost impossible.

MORE SOARING.



Major Petre, with a passenger, soaring on the "Kassel" two-seater at Dunstable. He is directly above the camera.

HIRTH'S NEW SCHOOL.

A new gliding and soaring centre has been established in Württemberg, in South Germany. It is known as the "Hornberg," and is situated about 30 miles east of Stuttgart.

During May a camp was started there, and on July 1st a school is to be opened under the management of Wolf Hirth; he is, however, retaining his interest in the old Grunau school. The Hornberg is starting off with a brand new fleet of gliders and sailplanes, which, though not at present as big as the Grunau fleet, will be enlarged later on.

The gliding schools at the Wasserkuppe, Rossitten, Grunau, Hornberg, and the new one at Borkenberge, in Westphalia, are now all to be known as "Association schools of the D.L.V.," that is, they will all be included in the big new "German Air-Sport Association."

VOLCANIC SOARING.

Last February, Robert Kronfeld, the famous Austrian soaring pilot, paid a short visit to Italy, and was welcomed by General Balbo, the Italian Air Minister. As a result, Kronfeld has now been commissioned to undertake a teaching and propaganda tour through Italy. Soaring demonstrations are to be given in Milan, Naples, Rome and Turin, and instructional courses will be held on weekdays in the intervals. Dual control instruction is being given in the AUSTRIA II. For the soaring demonstrations, the high-performance machine Ku 7, of 65 ft. span, will be used, and the towing aeroplane is an M23c.

The tour has now begun, for it is reported that on May 25th Kronfeld carried out a flight in the new machine over Vesuvius, and was in the air for four hours. What kept him up is not stated. Was it really the volcanic gases? It looks as though the soaring expert of the future will have to add to his multifarious accomplishments a smattering of seismology.

MORE CLUBS WANTED IN THE NORTH.

"Catterick," writing in the Manchester *Daily Dispatch*, calls attention to the amount of soaring that goes on in the South of England, and to the fact that, although the North is so well provided with hills in Derbyshire, Lancashire, Yorkshire and Westmorland, little soaring is ever done on them. If any group of enthusiasts hold a meeting with a view to starting a gliding club in a district which lacks one, he is prepared, if necessary, to find a speaker to come and tell them all about it. Having obtained a glider and an instructor, it only remains, he says, for the members to stick at it, and they will progress from gliding to the "sheer unadulterated joy" of soaring. This last piece of advice, which is the most important of all, is, we fear, the least likely to be taken.

HERR URSINUS ON AUXILIARY MOTORS.

The following letter from Herr Oskar Ursinus, Editor of *Flugsport*, has been circulated to a number of foreign aeronautical journals:

"The idea of soaring with an auxiliary motor has been, in its time, strongly combated in the Rhön after experiences which were relatively few in number. Certain circles—even scientific ones—declared that efforts made in this direction would constitute a retrograde step.

"And meanwhile flying with auxiliary motor has been made available to us. Where there are no hills, the gliders are launched by winch or car or towed by an aeroplane, and these two methods are within the range of all.

"Our glider pilots are satisfied with a speed of 60 km. (37 miles) per hour; they do not want to fly fast. What they want, above all, is to fly, and in a way that will not cost them dear.

"Ten years ago we had, in the KOLIBRI, a glider with auxiliary motor, but its soaring qualities were much too feeble. Max Kegel's machine with auxiliary motor was not so bad, but the engine did not suit it. What is required is a light engine, free from vibration, and at a low price.

"It is time to set out along this road once again, and to produce, at last, the Cheap Aeroplane."

"CATTERICK" ON THE LIGHT AEROPLANE.

Writing in the Manchester *Daily Dispatch*, "Catterick" expresses a hope that the late Mr. C. H. Lowe-Wylde will have given a lead which others will follow and develop to something like perfection. He adds:

"My view is that an engine of 6 h.p. is too light for any aeroplane used for practical purposes. But there is plenty of room between the extremes, and within the next year or two I expect we shall see a commercial proposition powered by something like 30 h.p. or 40 h.p. which will run cheaply enough to bring it within the reach of the ordinary man's purse."

If "Catterick" thinks he is following the lead given by Mr. Lowe-Wylde, he is mistaken. Of course 30 h.p. is more "practical" than 6 h.p. So is 60 h.p. more "practical" than 30 h.p. And so *ad infinitum*. We would remind "Catterick" that the KLEMM, which started life with 20 h.p., is now even more powerful than the original MOTH. The reason there is "plenty of room between the extremes" is simply that any manufacturer who gets into this "plenty of room" scuttles out of it again as quick as he can, and always at the top end. He is compelled to do so by the mentality of his customers. Read "Catterick's" next paragraph:

"Single-seaters do not, I think, appeal to the ordinary flier. Myself, I should get most terribly bored flying by myself all day! Half the joy in owning an aeroplane is to take one's friends up, as every member of a flying club will tell you."

Which gives the show away completely. The average member of an aeroplane club is not genuinely interested in the air at all, knows next to nothing about it and cares less. Compare him with the average active member of a gliding club. What a contrast!

"ONE-MAN" GLIDING

By A. C. T. ISAAC.

To obtain the maximum joy from motorless flight one must be able to fly whenever conditions are suitable. To this end apparatus and organisation must be reduced to a minimum.

The following early efforts in gliding would appear at first to be more in this direction than our present methods.

Our first glider was built in 1910. The design was limited by conditions of transport. One was fairly well versed in the experiments of the pioneers, but with the exception of Lilienthal's apparatus, nothing appeared portable enough. At this date the conventional arrangement of spars and ribs on powered machines was becoming crystallised. We therefore made our own design, using this arrangement. Photographs of the machine have long since disappeared, but the sketch in Fig. 1 is fairly accurate. Each wing was bolted to the two spars forming the fuselage and was hinged in the middle so that it could be folded up for transportation. When the outer sections were unfolded they were secured in place by ordinary door bolts. Little engineering knowledge was available but there was a sort of hazy idea that the load would be spread equally over the wings, and that if the spars were strong enough in shear, this was all that was necessary. The main spars were therefore 1 in. x 1½ in., and there was no bracing whatever.

The first attempt at flight fortunately ended in failure. The portability was a success and the machine was carried to the top of Parliament Hill (North London) by three people. As soon as it was turned into wind there were ominous creaks, and as soon as an attempt was made to run forward, one of the bolts holding the outer halves of the wings in line with the rest shook out. The wing tip promptly hooked in the ground and the whole wing was torn off.

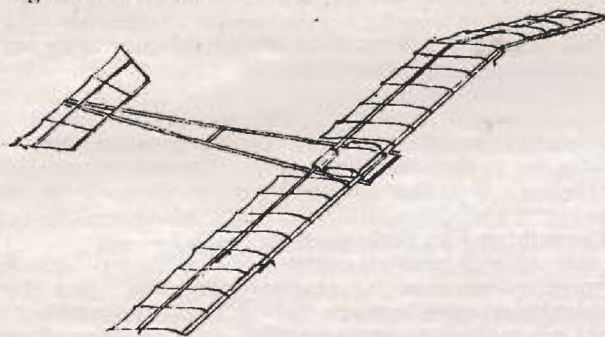


Fig. 1.

After this it was decided that the best method of procedure would be to make as close a copy as possible of the Lilienthal machine. Many visits were made to the South Kensington Museum, and finally a fairly close copy was achieved. The fabric was laced to the fuselage members and this lacing was undone for transportation. The ribs were then allowed to rotate round the masts and thus fold up the wings. The machine proved troublesome to build because no method was provided for adjusting the enormous number of flying wires; these were actually of string and a large number of them were eventually provided with wooden tent cleats.

This apparatus was in turn taken to the top of Parliament Hill and a run down the hill gave a very short but encouraging hop. At the next attempt we stood facing the wind on the top of the hill when a ten-mile gust occurred. The writer must have been standing well back at the time; the machine simply rolled over backwards, crumpling up its tail. It was completely destroyed and the pilot had to be carried home with a strained back.

A year later another attempt was made. We were convinced by this time that the area of the machine had to

be kept within limits in order that it might be handled with safety. We therefore kept the wing area down to 70 square feet. This meant that we could make a monoplane in two separate panels which could be carried each by one man. The final design evolved was about the limit of simplicity; it was constructed complete at one week-end (Fig. 2). The wings were covered with cotton fabric and given two coats of size; there were no controls. We arrived at Parliament Hill at 6 a.m. one morning and practised hops down the hillside until 9 a.m. when the police ordered us to "take it away." The following Saturday we returned to Parliament Hill before the arrival of the police and carried out a few more hops. In each case wind was not more than five miles per hour. We were able to run down the hill and simply draw up our feet. The sensation was somewhat equivalent to that of being on a Giant Stride.

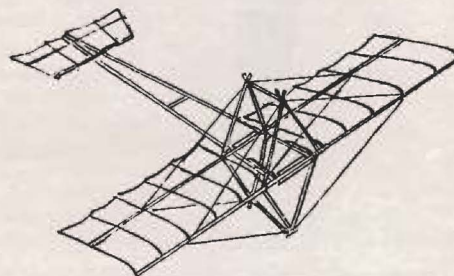


Fig. 2.

Then the wind freshened and the writer was suddenly appalled to find himself ten feet in the air. After thinking things over, it was decided to have one more hop. A gust again lifted the machine about ten feet and dropped it into the hillside on one wing; we crawled out with a sprained ankle.

Further arguments with the police decided us that there were many disadvantages of Parliament Hill as a gliding site, and also convinced us that more area was needed. The next attempt, therefore, was a biplane 24ft. span and 4ft. chord. This was fitted with a tailplane, front elevator and undercarriage. A shed was available in a large field at Chiswick, so the need for extensive portability was absent. On a windy day two people pulling this machine along from ropes on its wing tips were able to get the writer off the ground. The front elevator was a remarkable improvement. On several occasions the machine could be held level for some seconds without any forward motion at all.

The success of this machine and the absence of suitable hills turned our attentions towards the fitting of a motor, and gliding was not looked at seriously again until 1923. The machine shown in Fig. 3 was then evolved.

By this time we were convinced that if a glider were to be handled by one or two people, it could not have an area of over 100 square feet. Yet any ordinary wing section would make the landing speed too high, with the resultant loading. We therefore produced a skid undercarriage and employed a slotted wing. The slot was probably too far back to be of any use, being formed within the front spar. This machine was a complete failure, but bears the probably unique distinction of being the only glider to be stolen. No rubber cord was available, but attempts were made to pull the machine off with lengths of inner tube tied together. After a day of futile efforts in a dead calm, this machine was left out for the night, and on the following morning it had disappeared.

The final effort at producing the two-man machine was evolved in 1929. This brought us to the definite decision that the German methods were on the right lines, and that the idea of producing something very lightly loaded

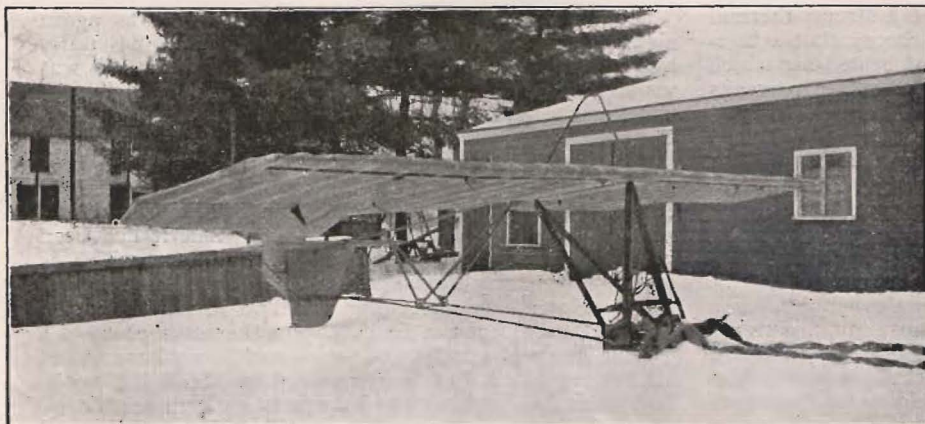


Fig. 3.

LOST, STOLEN or STRAYED:
the glider which vanished
in the night.

was hopeless. The machine evolved is shown in Fig. 4. It had the normal ZÖGLING area, but only weighed 100 lbs. One man could rig it in ten minutes and it could be auto-towed into the air behind a Morris Cowley.

As a practical piece of apparatus this machine was hopeless. When attempts were made to handle it by two men, one in the towing car and one to fly the machine, the first thing that invariably happened was that it would be blown over as soon as it was turned into wind. All piano wires, etc., were of course cut down to the limit, and as a result were always stretching. Although the machine could be set up in a very few minutes, it usually took half-an-hour to rig out the previous day's stretch. In spite of being blown over at least four times, this machine is still in existence, but it is literally not worth using because of the perpetual troubles encountered, due to its lightness.

To sum up, the conclusions come to from these experiments are these:—

- (1) The maximum weight per square foot which could be handled with a Hang Type Glider is $1\frac{1}{2}$ lbs. Greater loading than this gives too much wear and tear on the human undercarriage.
- (2) With this area, which means a minimum of 110 square feet, it is quite impossible for one man to

stand alone on the top of a hill and face a ten-mile breeze. There must be at least one person on each wing tip as well.

- (3) Any attempt to come between the "Hang" Type Glider and the conventional ZÖGLING involves a structure which, while quite possible, is too light for practical purposes.
- (4) The average man's weight being what it is, one-man gliding is impossible. With the best conceivable arrangement at least two other people will be required to handle the machine on the ground, whether it is catapulted, auto-towed, or run into the air on the pilot's own feet.

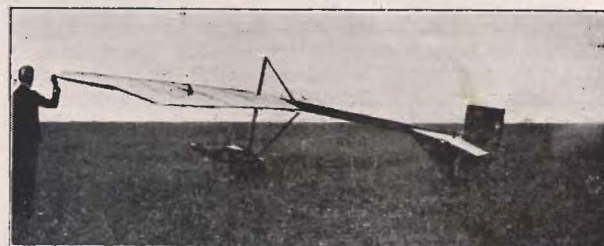


Fig. 4.

CLOUD - SOARING FLIGHTS BY MODELS

We have received the following interesting letter from Mr. F. P. Newley, of Leytonstone, E.11:

"I do not know if it has already been called to your attention, but if not, perhaps the following extract from the *Model Engineer* of May 18th will be of interest:

"The meeting was the occasion of a most extraordinary flight obtained by a new member, Mr. G. J. Liggitt. His model, a balsa high-wing of 36 ins. span, and $1\frac{1}{4}$ ozs. weight, after about five minutes in the air, was observed floating about beneath a cloud, at a height estimated by a competent authority to be about 1,500 ft. A stop-watch was then brought into use, and after a further $9\frac{1}{2}$ minutes, during which time the model made small circles beneath the cloud, and had become a mere speck, it went up through the cloud, and was finally lost to sight."

"The only comments I need make on this are: that if a pilotless model, suffering from the drawbacks of 'scale effect' and the drag of its idle propeller, can soar through a cloud, starting from not more than 100 ft. up (which is as far as its rubber motor would carry it), then an efficient sailplane ought to be able to soar straight from the ground! And that all aspiring 'thermalists' had better book Stag Lane aerodrome for their attempts (that being the scene of this flight)."

The performance to which our correspondent has drawn attention is certainly an extraordinary one, but it is not unique. Something very similar happened about a year ago, and again, strange to say, it was a comparatively new member of a model-flying club who staggered the old stagers by showing them something they had never

done in their lives. In *Flight* for May 6th, 1932, there was published a letter from Mr. Charles A. Rippon, of Crouch End, who wrote as follows:

"At Parliament Hill, N.W., on Sunday, March 20th, 1932, in the presence of hundreds of onlookers, a model aeroplane (enclosed type, of about 30 ins. span), constructed and flown by a young enthusiast of about one year's experience, was carrying out some good flights. The weather was warm, hazy, and a light breeze high up, blowing down the hill in a south-easterly direction. On the model being launched on what proved to be the last time for its owner, it climbed to a great height, and after the rubber motor had run down, continued to circle in a gently undulating glide due to the initial bias on the vertical fin. This in itself was not unusual, neither was the loss of the model for that matter; what was unusual was the tremendous height it attained and the fact that it literally disappeared into the clouds. In my 24 years of model flying I have never seen anything like it, and you can imagine the mixed feelings of exultation and loss of our young friend. At least he made model history!"

It is to be noted that the conditions were somewhat different in the two cases. On Parliament Hill the slope would be more or less facing the sun; around it is a mixture of trees and buildings, and on the other side of the hill are woods. Although the general trend of the wind was down the hill, there may have been an occasional reverse eddy blowing up it. At Stag Lane, on the other hand, the aerodrome is not the only field in the vicinity; there can be little contrast between the nature of its surface and that of the fields around it. The fact that the

air only 100 feet up can form part of a strong thermal current would seem to prove Hirth's theory that a thermal current consists of a "bubble" of heated air which builds itself up in contact with the ground and then breaks away. Further, it must be remembered that an aircraft in a thermal current is continually sinking through it.

A further case of a model soaring into the clouds has been reported from Germany. On June 5th, 1932, according to *Flugsport*, a model competition was being held on the Vechta (Oldenburg) aerodrome on the occasion of its opening. A model glider of 130 cm. (4 ft. 3 ins.) span was launched from a box kite at a height of 60 m. (200 ft.). It immediately started turning in circles, and after a short time began to climb. In seven or eight minutes it had reached a height estimated at about 1,000 ft., and it then disappeared into a hole in the cloud surface. The reporter of the incident describes the clouds as "nimbus" and "cumulo-nimbus," but says that it was not a particularly hot day, and that the air was almost dead calm.

Soon after the model had disappeared, it was again sighted as it returned to earth. It was found $2\frac{1}{2}$ miles away, and the total duration of the flight, as far as it was visible, was timed as $10\frac{1}{2}$ minutes. The model, by the way, had a surface of silk cambric and was doped with Cellon.

But the long-distance soaring record for a model is held by a small glider of 20 ins. span which was found on August 25th, 1931, on the road from Freilingen to Limburg. The model bore a label stating that it had been released from a free balloon above Solingen, which is just 50 miles away from where it was found. Some stamps were enclosed, and the finder asked to return the model with particulars of the finding. On the assumption of a gliding angle of 1 in 20, the model could only have glided all the way if it had been released at 13,000 ft.; as the balloon is hardly likely to have been as high as this (it was not Professor Piccard's), it follows that the model must have soared the greater part of the distance.

DISSOLUTION OF THE RHÖN-ROSSITTEN GESELLSCHAFT

[The following communication, which we have received from the R.R.G., shows, in greater detail than we have yet given, what has really happened to that body. The untranslated phrase at the end may perhaps be taken as the equivalent of our "for information and necessary action."]

Upon the establishment, by the Reich Commissioner for Aviation, of a new organisation for German sporting aviation, the R.R.G. will be merged in the D.L.V. (*Deutscher Luftsportverband*—German Air Sport Association). The meeting of members, called for the purpose of dissolving the R.R.G., took place in Frankfurt am Main on April 26th, under the chairmanship of the President of the R.R.G., Prof. Koenen, of Bonn.

When, on June 1st, 1933, the Rhön-Rossitten Gesellschaft ceases to exist as an independent organisation, the work hitherto performed by it will be carried on in even greater measure within the D.L.V. The Research Institute of the R.R.G. in Darmstadt and on the Wasserkuppe will, under the name of "German Research Institute for Soaring Flight" (Institute of the D.L.V.) continue to work upon the scientific and technical questions of soaring flight and the problems associated therewith; further, there will be added to it a testing department, which will supervise the design and construction of sailplanes and gliders in the entire D.L.V. and will also give advice. The two schools of the R.R.G., on the Wasserkuppe and in Rossitten, become Association Schools of the D.L.V., but with the proviso that the Wasserkuppe school, in the future as in the past, will remain directly under the Director of the Research Institute, and will be available for him for the practical testing-out of the results of the scientific work of the Institute.

Prof. Dr. Georgii, hitherto Director of the R.R.G. and of the Research Institute, will take over the leadership of the entire motorless flying activities of the D.L.V. At the headquarters of the D.L.V. in Berlin an office will be established for the carrying on of this work, with Dr. Graf Ysenburg, the first general secretary of the R.R.G., in charge, while the second general secretary of the R.R.G., Major a. D. Gerner, is to take over the General Administration Department of the D.L.V. In the new organisation, the relations of German motorless flying with that of other countries will be taken care of, in the International Commission for the Study of Motorless Flight (Istus) and in the *Fédération Aéronautique Internationale* (F.A.I.), by Prof. Georgii and Graf Ysenburg as before.

With the dissolution of the R.R.G. there comes to an end a period of great significance in the history of German soaring flight, which will always be associated with the name of the town of Frankfurt am Main. The movement called into being in 1920 by Oskar Ursinus, of Frankfurt, grew so rapidly in the next few years that it appeared necessary to create a centre which could



"Ursinus House" on the Wasserkuppe: the R.R.G. headquarters during competitions.

take over the guidance of the scientific, technical and sporting activities and at the same time become responsible for the arrangements for the Rhön Competitions which had grown up in the course of years at the Wasserkuppe. It was due to the far-sightedness of the Reich Transport Ministry, especially of the Director of the Aviation Department, Dr. Brandenburg, that in the autumn of 1924 the Rhön-Rossitten Gesellschaft was founded, the Rossitten gliding school in the Kurische Nehrung being included therein. For its chairman, Dr. Kotzenburg, of Frankfurt, the *Konsul* to whom soaring flight in the Rhön was so much indebted, was chosen. The headquarters of the Company were placed in Frankfurt. The kernel of the R.R.G. was its Research Institute on the Wasserkuppe and in Darmstadt. Since Prof. Georgii became its director early in 1926, this developed rapidly into one of the most important aeronautical institutes in Germany, and laid the foundations for the astonishing strides made in scientific and sporting achievement in the realm of soaring flight. Names such as that of the chief designer of the R.R.G., A. Lippisch, or of the pilots, J. Nehring and G. Groenhoff, have an international ring, just as the directors of the two gliding schools, Stamer of the Wasserkuppe and Röhre of Rossitten, to whom thousands of gliding and soaring pilots in Germany and abroad are indebted for their training, have had the strongest influence in the organisation of the sport of motorless flying. The leading position which the R.R.G. enjoyed throughout the World found its expression in the entrusting to it of the Presidency both in the "Istus" and in the Soaring Flight Commission of the F.A.I.

To-day motorless flight is no longer confined to a small circle of air-minded sportsmen; rather is it going to become a mass-sport for youth. To make the German people by this means into an aeronautical-striving (*Luftfahrttreibenden*) nation is the great task to which the German Air-Sport Association (D.L.V.) will now devote itself.

Zur gefl. Verwertung:

RHÖN-ROSSITTEN GESELLSCHAFT.

A GLIDER PILOT'S LETTERS TO HIS SON

[In the following series of letters, the reader is asked to imagine himself living in the year 1960, as indeed we hope he will be. By that time many of our more promising young pilots will be the fathers of families. These, then, are a series of letters from an elderly "C" pilot to his son who has taken up gliding.]

I.

My dear Otto,

It is with joy that I take up my pen to congratulate you upon the step you have taken. You are going to learn to glide, perchance to soar. You are embracing a noble occupation, and as such you must treat it with due reverence. It is not to be regarded as a joke, nor yet as a means of exhibiting yourself before a crowd of friends. You must approach it with humility of spirit, tempered with determination. Let me give you a brief sketch of your training.

You will be led out to the training slopes and placed upon the seat of the glider. Look around you and observe. Between your knees is a stick; your feet rest on a rudder-bar. Work these controls and observe the effect on those hinged flaps in the tail and on the wings. The action of the rudder is simple, and is like that of a boat: to turn to the right, pull the right string—in this case with a push of your foot. "Push right, to turn right." The stick or control-column is not so simple at first, but remember this and you will always comprehend it: the machine always tilts the same way as the stick. Tilt the stick to the right and over to the right you will roll; tilt it forwards and down the hill you will go. Now you know this with your head but, if you are going to fly, you must know it with your hands, and this you can alone teach yourself by flying on every opportunity you get.

Your first flight will, I hope, not be a flight at all; you will make a straight slide a short way down the hill. Nevertheless, you must try the controls to convince yourself that they work and, after a few slides, you will take to your new medium—the air.

Now comes a rule which you must ever keep before you, murmuring it as you drop off to sleep at night, shouting it gladly as you leap from your bed in the morning; "I must keep up my air-speed." Air-speed is the life-blood of flight, and, if you lose your speed through the air, your aircraft will cease to be a flying machine. It will come crashing to the ground.

"How shall I know my air-speed?" you will ask. Oh, boy! You have been equipped with ears and a sensitive skin. Listen to and feel the strength of the air-flow on your face and preserve it by guiding your machine ever on the downward path. If you do not, an ominous silence will insidiously establish itself. Beware! it is the calm before the storm. Ah, me! why does the ground come rushing up like that? What is that rending crash? Wherefore these hurrying footsteps? You have stalled! You have stalled! Then you will remember the rule: "I must keep up my air-speed." But now you will really know, never to forget.

Good-bye, my son,
And remember to keep up your air-speed.

FATHER.

II.

Dear Otto,

I perceive from your letter that the gloomy prognostications of my last were fulfilled—you stalled on your seventh flight. It is often so. The young pupil, who takes to the air like a duck to water, is ever to be regarded with apprehension. Indeed the congratulatory comments of your friends on the success of your early flights should

have been received by you with reserve, for then the humiliation of your crash would have been the less bitter. But, as I say, it is often so; a crash comes to us when we least expect it; that is, when we are most pleased with ourselves. Never mind, you have learnt your lesson in a way that cannot be excelled.

I have no doubt that, by this time, you are capable of making a straight flight whenever you wish, and that soon you will have your first launch from the hill-top. In that flight you will have to perform a turn—a hair-raising evolution the first time, for you see the ground on your right or left hand instead of directly beneath you, but later on an exhilarating manoeuvre, as, with plenty of speed and just the amount of "bank" to balance your rate of turn, you deftly bring the machine round into wind for the straight glide up to the landing. I remember a phrase of my young days—indelicate, perhaps, but descriptive of the feeling of a good turn—"as snug as a bug in a rug." Now, mind! don't repeat it to any of your girl friends.

Now for the details of the turn. You know the bare elements—left stick and left rudder to turn to the left and *vice-versa*. Ah, yes, but it is not so simple as that. All your movements in gliding must be gradual, and so do not slam your stick and rudder across. Move them both gently a little way, as an experiment. Do not, even then, expect an immediate result, as you would in a car or on a motor-cycle, for now you are dealing with a fluid, not a solid, element. But, sure enough, you will find that the horizon quietly tilts to an angle and commences to slip slowly past, what time you remain pressed straight down into your seat, just as if you were really in the upright position. Now that is the test of a good turn. In the steepest of turns, you always press straight down on to your seat.

But your turn is only just beginning. Remember now that your outside wing-tip has farther to go than your inside one, and so will have to move faster to do it. Hence the lift is increased on your outside wing and the machine will therefore tend to go on increasing the "bank" of its own accord. Do not allow it! Master it by some opposite "bank"! Yes, once your left turn, for instance, is started, you should be flying with left rudder and slight right stick. When, later, you come to fly one of the high-performance machines, say, across to Paris, or even, as is done nowadays, to the Wasserkuppe, this tendency to overbank will be the more marked because of the big span. But first let us learn to walk!

Your turn is now established. Your next stage is to stop turning, when you so wish, and for this the movements are just as positive and definite as those for starting the turn. Push your stick gently across against the "bank," and, as the machine resolves itself into the horizontal position, bring your rudder back to central again, and now you are once more flying straight; but don't forget the Golden Rule: "I must keep up my air-speed."

You have now reached an important stage of your flying career and you must seize every opportunity for a flight off the hill-top, to practise your turns, in preparation for that great day when you enter the Holy of Holies and make your first soaring flight.

Remember, gliding is a proposition in which, at first, you invest much, with but little return. For so you will feel in these days when, for want of a soaring wind, you must be content with a glide down from the hill-top. But have heart, for one day you will turn up at the Club to find a firm, steady breeze blowing straight up the hill, and woe betide you then, if you do not feel confident of your turns.

Good-bye, my son,
And keep up your speed on your turns,
FATHER.

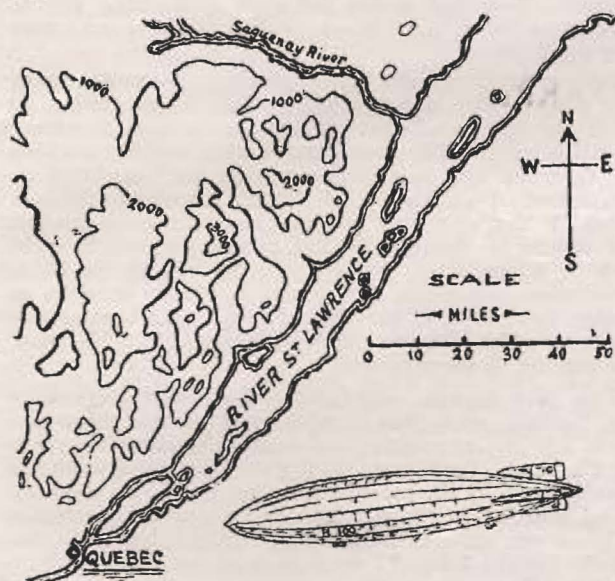
(To be continued.)

AIRSHIPS AND AIR CURRENTS

The May issue of *Blackwood's Magazine* contains an extraordinarily good account of the life-history of the airship R 100, written by Nevil Shute, who was chief mathematician on the designing staff and accompanied the ship on nearly all its voyages.

The story is carried right through from 1924, when the airship existed only in the mind of its designer, to 1931, when it was finally broken up. But the passages which will particularly interest soaring enthusiasts are those which describe its adventures in the neighbourhood of the St. Lawrence River after having crossed the Atlantic to Canada.

Airship navigators, like sailplane pilots, are very much concerned with variations in the atmospheric "lapse rate," or rate of change of temperature with height. But on the subject of wind flow over hills they are probably almost as ignorant as the average aeroplane pilot, which is saying a lot. Anyhow, on July 31st, 1930, the R100 was proceeding along the course of the St. Lawrence at 3 o'clock of a hot afternoon, when, to cut a corner, it crossed over from the south shore to the north, at a point about 50 miles below Quebec. It immediately got into trouble. At this point there are high hills on the north shore, and the wind, according to the writer, blew cold over the tops of these and cascaded down into the hot valley below (apparently he could think of no other reason for the air being disturbed in the lee of a range of hills). The R100 strayed into this violently disturbed air and for 10 minutes was tossed about as it had never been before, oscillating rapidly in pitch over about 10 degrees each way, and at the same time yawing and rolling heavily. Result—tears in both horizontal fins, which had to be repaired in mid-air.



Late that afternoon they reached Quebec, and then headed for Montreal. At about 7.30 they got into trouble again. It was nearly dark and they were cruising at about 1,200 feet at a speed of 40 knots. They had seen ahead for some time a heavy bank of cumulus cloud, too large to circumnavigate, slightly copper-coloured and raining underneath. They anticipated finding an up-current as they approached its face, but did not expect this would be serious. Before-dinner cocktails had just been served in the saloon when the ship passed through an intense and very local vertical gust. As this acted more strongly on the fins than on the rest of the ship, its nose was tipped downwards to an angle of 25 degs. Before it could get level again, it hit another more extensive gust, which carried it rapidly up to 3,500 feet, and then, after a short pause, to 4,500 feet. The last thousand feet were covered

in about 15 seconds, and the actual upward velocity of the gust at this stage was subsequently estimated, taking various factors into account, at not less than 50 miles an hour (73 feet per second), or not far short of half the terminal velocity of a human body. In a deluge of rain the airship was got back on its course and brought gently down to 2,000 feet, soon afterwards passing out of the storm.

There are many meteorological problems which are common to the flying of both sailplanes and airships, problems that aeroplanes, on the other hand, do not trouble to concern themselves with, owing to the fact that it is so much less trouble to use a throttle than a brain. Severe vertical currents have brought more than one rigid airship to its end; there is the case of the SHENANDOAH, which is said to have broken in half in a line-squall, and more recently the AKRON, which came to grief in a thunderstorm. Even the GRAF ZEPPELIN has had its uncomfortable moments. But it is not only these major disturbances with which airships are concerned. It will be remembered that Mr. C. S. Durst's theory of gust "cells," which is likely to prove a most useful contribution to the furtherance of the art of soaring flight, was worked out as a result of investigations into problems of airship navigation at Cardington. And as for the "lapse rate," upon which depend not only the prevalence of thermal currents suitable for cross-country soaring, but also the height to which a sailplane can climb above a hill, I once watched the R 101 taking over an hour to be pulled down to the Cardington masthead, and all because of the "lapse rate." It was a warm autumn evening, and the atmosphere was so unstable that those in charge, it was explained afterwards, feared to bring the airship down too rapidly in their then state of inexperience; they had to wait for the ground to cool down, so that the air would become stable and vertical currents be damped out.

It is a matter of especial regret for us that the Government's airship programme should have been given up. It would have provided great opportunities for co-operation in meteorological work between the two branches of aeronautics. As it is, the powers that be are only interested in aeroplanes, and why should aeroplane fliers bother themselves with studying air currents? What is the throttle there for?
A. E. S.

AIRSHIP-TOWED FLIGHT.

While we are on the subject of airships, it may not be out of place to mention an interesting experiment which was carried out during the Cleveland Air Races, Ohio, in October last year.

The two-seater sailplane SKYGH0ST, designed by Franz Gross, was towed to Cleveland from its home in Akron behind the small Goodyear airship DEFENDER, of "Blimp" type. The distance of 31 miles was covered in an hour. The towing cable was 445 feet long, and a telephone line also connected the two aircraft.

It was found, says *Flugsport*, that the airship had an unfortunate habit of rising or falling while making little forward speed, and the glider was "given similar flying properties by means of a little parachute fastened on to the tail skid." This accessory fitment was found to be of great benefit in the peculiar circumstances.

On arrival over the airport, the glider was uncoupled, and from it there jumped a lady parachutist known as Babe Smith.

A more ambitious experiment was carried out in connection with a gliding display at Akron, Ohio, when a covey of four gliders was towed behind a "Blimp" (probably the same one). They were three CADET type machines and the Gross two-seater aforementioned, and the four of them flew side by side. This was to have been the principal event of the meeting, on October 23rd, but owing to bad weather it had to be put off till the following day, when it was duly filmed by representatives of the Pathe News and Fox firms.

SOARING OVER AIRSHIP SHEDS.

The same two-seater of Franz Gross has found yet another use for airships. The machine is fitted with dual control, and, thus equipped, it has been used for instructional purposes on the Akron airport. A 1,500-ft. cable is used, and, after casting off at about 1,000 feet, the glider proceeds to soar, if the wind is in the north-west, partly over a line of hills bordering the east side of the airport, and partly over the airship shed. Last summer several flights of half-an-hour or so were carried out above the shed. In an east wind, however, it is not possible to use the shed for soaring, owing to the blanketing and disturbing effect of the aforesaid chain of hills to windward.

It is worth mentioning, by the way, that a small parachute is attached to the glider's end of the cable; this opens as soon as the cable is cast off, and prevents it from kinking or forming loops and getting entangled in itself while falling.

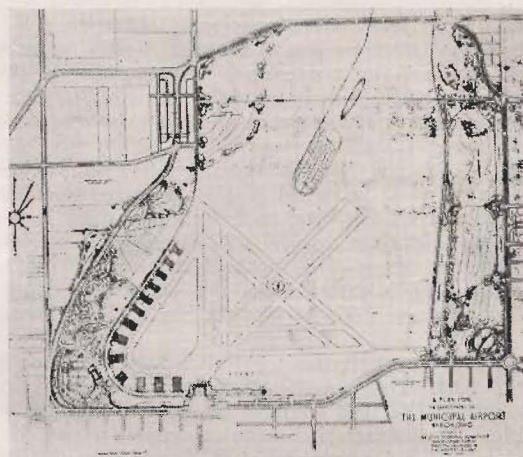
The airship shed at Cardington, in this country, would have made quite a good soaring site, though it is doubtful if the authorities would have allowed such a thing, seeing that they used to warn off aeroplanes from coming within a mile or more of the place. It may be remembered that in 1930 the staff at Cardington started a gliding club; they were only at the primary training stage, however, when their activities were so unfortunately cut short, and the machine was subsequently sold to the London Gliding Club. If they had only reached the sailplane stage, they might perhaps have been seen soaring, not only over the windward side of the hangar, but round and round it, for it is well known that on the lee side of buildings and steep hills there is usually an up-current to be found, and, with all those meteorologists about, it should not have taken long to discover the precise nature of the air flow round the hangar.

This rising current of air moving up the wall on the

lee side of a building can be easily demonstrated with gliding models or small parachutes, which will soar rapidly up as high as the roof. In an open space between two high buildings, a parachute will often describe a circular course—up one side and down the other (i.e., down the *windward* side of the opposite wall)—and at times may even get carried, by an extra strong bout of up-draught, well above roof level and off on a short cross-country flight.

It was Kronfeld who said that, as a prelude to successful high-performance soaring, one should watch the blown dust and the leaves to study the eddying of the wind round the street corners. He said this three years ago while lecturing in England, and he has yet to be proved wrong.

A. E. S.



Plan of Akron Airport.

(Courtesy of "Flight.")

DOINGS AT DARMSTADT

By D. MACCLEMENT.

While in Germany this spring, I had the opportunity of seeing some of their latest methods of instruction in gliding. Perhaps a few notes on these methods will be of interest, especially as a comparison with those used at present in England.

Just west of Darmstadt, on the old military field at Griesheim, the R.R.G. were giving their first course in blind flying. That the Germans consider a knowledge of blind flying necessary for a sailplane pilot, indicates the seriousness with which they go at this sport, and the direction in which it is developing.

Nine pupils and five instructors were living at the field. Most of us slept in an old army hut, now turned into a *Jugendherberge* or "Youth Shelter," and had our meals at an excellent little *Gasthaus*. Total expenses, 2.50 mks. per day.

At 5 a.m. we piled out. At 6 a.m. the machines were out of the hangar, and the 750-foot towing cable laid out. Everything was ready to start when the KLEMM towing machine arrived from the city. At that time in the morning there was no wind, so that the take-off could be made straight across the field from the hangars. These early hours were set aside for blind flying, as the air is perfectly still, and the pupil can concentrate on his instruments without being disturbed by thermal bumps.

The blind flying glider is especially built for the purpose, with a tapered and swept-back parasol wing mounted above a welded steel tube fuselage. A simple under-carriage with two air wheels helps the take-off and landing, and enables the machine to be easily moved by hand. In the tandem cockpits are standard dual controls. The pupil sits in front under a removable plywood cover, which has curtained windows. The instruments are in duplicate. The important ones are the bank and turn indicator, and compass. Normal flight is checked by an air-speed in-

dictator and a fore-and-aft inclinometer. An altimeter and a variometer are also on the board, but are little used.

The instructor takes off, and flies the machine until the cable is released at 500 metres (1,650 ft.). The pupil then takes over and attempts to fly correctly by the use of the instruments alone. Straight-ahead flying is easily learned, and from this one goes on to turns. First gentle turns through 90 degs., then on around till one can make correct circles, always trying to come out headed in some pre-arranged direction. Each manoeuvre is criticised while it is being made, which makes for rapid progress. Some of the pupils became so expert that they could even make perfect landings with only the instruments and the instructor's voice to guide them.

Usually by 9 a.m. each pupil had had a flight, so we called a halt for coffee. The late morning and early afternoon hours were made use of by those who wished to fly solo in the other machines. About 5 p.m. the dual instruction began again and continued until dark.

During the evening meal, the events of the day were discussed. Everyone had questions to ask or interesting stories to tell. Bits of practical knowledge were always floating around the table, and one had only to sit with open ears to pick up a great deal of useful information.

Personally, I think blind flying could be learned as well on ordinary motor machines fitted for that purpose, of which there are many already in this country.

[Mr. MacClement, who learned to fly in Canada, got his "C" soaring certificate with the London Gliding Club last year. Recently, while in Germany, he took a course of instruction in aeroplane-towed gliding at the R.R.G.'s school at Darmstadt. He has promised another article on his experiences, which included soaring flights in thermal currents and under clouds.]

CORRESPONDENCE

THE HUISH SITE.

Sir,

One hesitates to question the statements of such an acknowledged authority as Mr. Buxton, but his criticism of the Huish site requires greater discussion than you were able to allow in the last issue.

As your footnote hinted, the B.G.A. is forced to take a wide view in the matter of annual competitions. In the ideal case, such a meeting would be the culmination of twelve months' work in club life, would show the definite progress made in that year, and, by the set standard of competitive events, would encourage a performance at higher levels than previously obtained.

The ideal was aimed at when the writer pressed the virtues of the Askam site on a very unwilling Gliding Movement in 1932, but it must be admitted that a large number of club members were unable to attend owing to the expense of travelling so far.

Now, the British Gliding Movement has not yet reached the stage when the Central Authority dares to cater only for the expert, and is able to tell the ordinary individual to go to the clubs for normal activities. So few clubs are able to offer even the most elementary training that Authority—in this case the B.G.A.—must step down from its lofty pinnacle and do what it can to help those who want to glide before they soar.

Here, then, are two divergent aims instead of one bright shining goal. To meet the needs of the Clubs it was decided to hold the 1933 event in as central a place as was possible. To attract the more advanced pilots, the site had to offer good prospects, and, if possible, training of club members was to be catered for.

There is no need to recount the excursions made to view various sites—every club official knows (or should know) such joys. Huish was finally chosen because it offered the best "all-round" prospects. Capt. Entwistle had surveyed the ground many years ago for R.A.F. gliding tests and had reported favourably. He has kindly supplied wind roses, which support Sir Gilbert Walker's records, and these suggest that weather prospects are good. The writer offers a humble opinion that the nature of the surrounding country will give rise to those thermals beloved of the true sailplane pilot. Let it be specially emphasised that the farmers concerned are *overjoyed* with the honour of our presence. This attitude alone should be enough to draw all the Clubs in the country. And, the site is good for training.

Under the circumstances the B.G.A. is fortunate in its choice. The success of the 1933 meeting, and of the whole Movement, rests with the individual enthusiasts. The only further requirement is that our pilots should come to Huish and display British technique under British conditions, especially on British machines, so that our *united efforts* carry us nearer the goal of a strong National Movement in which we shall find all the prestige which could be hoped for.

FREDERIC PILLING,

Chairman, Contest Committee, B.G.A.

ARRANGEMENTS FOR HUISH.

Sir,

A properly conducted instructional course in Gliding and Soaring will be provided by The British Gliding Association in connection with the forthcoming Gliding Meeting at Huish.

The proposal is to give adequate instruction on dual-controlled machines, under a first-class, competent man, so that when the pupil flies other machines he will feel competent to do so without fear of doing any damage.

Pupils can be trained up to any stage they like to go, the minimum instruction being five flying days.

The charge for five flying days is £3. The full course for a pupil going up to the "C" soaring stage should take about three weeks at a cost of about £15.



At Huish: looking westwards along the main soaring ridge.

Pupils will be put into classes and flying will start at 9 o'clock each day. Pupils will fly according to their class roster, and the discipline of school life will be maintained throughout the course.

The school is open to all comers of both sexes, and in order to get in on the early classes, those intending to join up should do so without delay.

A Y.M.C.A. Centre.

An added attraction for those attending the Huish Meeting will be the presence of a Y.M.C.A. centre in the camp.

In addition to providing meals, consisting of breakfast, hot lunch, tea and cold evening meal, a buffet will be provided for the sale of cigarettes, light refreshments, writing and reading materials, etc., whilst a separate tent will be available for reading, writing and games.

Sleeping accommodation will be in bell tents, and there will also be "Married Quarters" and "Ladies' Quarters." Excellent baths are available at Marlborough.

The charges (payable to the Y.M.C.A. in advance) have been fixed as follows:—

- * (1) 4 meals a day and bed ... 27s. 6d. per person, per week.
- * (2) 4 meals a day and bed ... 10s. per person, per week-end (Friday night to Monday morning).
- (3) 4 meals a day only (no bed) ... 20s. per person, per week.
- (4) 4 meals a day only (no bed) ... 8s. 6d. per person, per week-end (Friday night to Monday morning).

* Bedding and washing utensils included in these charges.

All those attending the camp may rest assured that the Y.M.C.A. will do all in their power to make their stay enjoyable, but *please* be good enough to let us know at *once* what arrangements we can make for you.

J. L. WAPLINGTON,

Secretary, B.G.A.

19, Berkeley Street, W.1.

FOR HIRE, June-July, Rice Standard Folding Caravan, one double, one single berth; 2½ gns. weekly.—Box 4126, "Sailplane," Offices, 43, Chancery Lane, London, W.C.2.

FOR SALE.

Buy a CORONET Anastigmat Folding Pocket Camera. Fitted with automatic opening and extending device, which at the press of a button opens the Camera, extends the Bellows, and locks the Shutter in position ready for taking pictures. Fitted with Taylor-Hobson Anastigmat Lens; 3-speed Shutter—1-25, 1-50, 1-100 sec.; Iris Diaphragm; Brilliant Reversible Viewfinder; two Tripod Bushes and Leather Handle. Takes all makes of film 3¼ by 2¼ ins. With F7.7 Lens, Price 33/-. With F6.3 Lens, Price 42/-. equal to any Camera sold at 3 guineas. Hand-stitched Solid Cowhide Case, 5/-; Waterproof Tan Canvas Case, 2/6. All carriage paid. Lincoln Trading Company, 43, Chancery Lane, London, W.C.2.

NEWS FROM THE CLUBS.

In its wrong element: the Ulster Club's "Reynard" after a descent in the sea at Macgilligan.



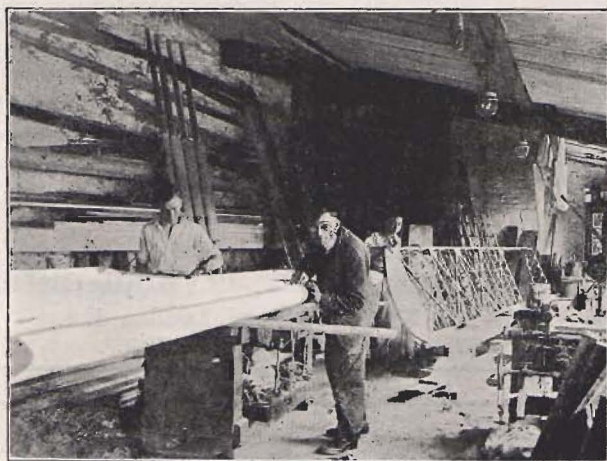
BRADFORD AND COUNTY GLIDING CLUB.

May 31st, 1933.—During the last few weeks the advanced members of the Bradford club have been taking every opportunity of putting in training on the DICKSON Intermediate in readiness for the HOL's, which is now completed and is to be launched during Whitsuntide. Each of the DICKSON Squad must complete two qualifying flights of 70 seconds with suitable turns before being passed out to fly the HOL's, and up to the present half-a-dozen members have achieved the necessary qualification.

Holdsworth, our chief constructor, has shown the most marked progress in skilful manoeuvring of the DICKSON, although even he landed in an awkward position on the hillside last Sunday and chipped off a few corners. Hastwell appears to have lost his speed mania and is now in the HOL's Squad, while Robertson seems able to fly without stalling at a wind speed approaching zero.

In the REYNARD section, Jowett caused some consternation a fortnight since, when performing his first qualifying flight for the "B." He landed on forbidden ground, after hopping a wall, right in the middle of Farmer Fury's hayfield. Fortunately the latter was paralysed with rage or, perhaps, he may have been up at the "Wheatsheaf," and a safe recovery was made over two barbed-wired walls.

Our Whitsuntide programme extends from Saturday morning to Tuesday evening, during which time we are looking forward to much good work with the HOL's.



H. Holdsworth (ground engineer) and members of the Bradford Club at work on the "Hol's der Teufel."

KENT GLIDING CLUB.

No words can express our sorrow at the tragic loss of "Jimmy," our founder, president, and continual source of inspiration. No one who knew him will ever forget his terrific energy and dynamic personality, and it was largely due to his encouragement and example that the Club managed to carry on through the difficult days of 1931. Everyone connected with Gliding will miss him, but none more than the members of his own Club.

It is sad to think that this is the second President we have lost in a "power" crash (our first, Dr. Whitehead-Reid, being killed near Maidstone in 1930), and one of

our Vice-Presidents, Sir Sefton Brackner, was a victim of the R 101 disaster.

The Club was represented at the funeral by Miss Sinclair and Messrs. Sanguinetti and Weekes, Mr. Nichols representing former members.

For the next few week-ends we have a large amount of construction work to do. The B.A.C. I. is being "nacelled," and COLUMBUS, Lowe-Wylde's first machine, will be reconditioned for training with the original wings, refitted and the wire bracing replaced by struts. These wings and the girder section were first flown in February, 1930, and are still sound—a tribute to the constructional skill of our founder-members. It is also proposed to equip the "B.W. I." with axle and wheels for use on the aerodrome.

The Annual General Meeting was held in Maidstone on May 29th, with Mr. Sanguinetti in the chair. The treasurer reported a balance of £5 18s. 9d.—a slight increase on last year's balance.

The Chairman presented a report of the Club's activities during the past year. Flying had taken place almost every week-end, except when the meetings had been devoted to construction. Three pilots had obtained their "B" licences on the Lenham site, and the new method of launching by car had greatly added to the duration and interest of flights. The fact that several new members had joined had given the Club considerable encouragement.

It was decided to enter our secondary machine in the B.G.A. Competitions, with Messrs. Weekes, Dugdale and Nightingale as pilots. A proposal was made concerning a new class of membership, and it was decided to enrol affiliated members at 5s. per annum, which will include full non-flying members' privileges, with the exception of voting powers and free entrance to B.G.A. Meetings.

The office of President was left open for the present, and the Vice-Presidents were re-elected. Other elections were: Secretary, Miss R. H. Sinclair; Treasurer, Mr. V. Ross; Committee, Messrs. Weekes, Sanguinetti, Nightingale, Preston and Jay.

LONDON GLIDING CLUB.

After giving us soaring winds almost continuously for weeks and weeks, His Anonymity the Clerk of the Weather has called a halt. So there is nothing very spectacular to record. There has just been the solid routine work of instruction for beginners, auto-launching for the more advanced, and occasional prolonged glides off the top. The newly-booted DAGLING was stalled on a turn on May 20th. Such a bright and shiny boot it was; it is a pity it was never used to advertise the wares of some boot polish manufacturer.

The POPPENHAUSEN two-seater continues to contribute to the club coffers.

On May 17th our colour scheme was considerably brightened up by the arrival of the new WILLOW WREN. Where the original CRESTED WREN is painted red (i.e., over all the plywood part), the WILLOW WREN is a bright, golden yellow. Not that that is the only difference. The new WREN has a slightly deeper body than the old, and the tail unit has been "cleaned up"; there are now no struts in the tail, and the control wires are carried along entirely inside the fuselage. When Mr. Manuel turned up with his latest product, its only aerial experience had



The "Prüfling" returns to Dunstable with a new nose, built by Morland. Included in the group: Morland (untying it), Eisenstadter (in plus fours), MacClement (pulling up sleeve) and Hiscox (striding out of picture).

been three auto-launches at Folkestone. Luckily there was a soaring wind at the moment at Dunstable, so Dewsbury gave it its soaring baptism; but at the end of a quarter of an hour the wind veered towards north, so he had to come down. On the following Sunday Thomas soared it in a light wind for 10 minutes, until the wind became too light, even for a WREN.

Now that Manuel has established himself in the neighbourhood and taken up residence (if that is the right word) in the offing, we look forward to seeing WREN after WREN performing test flights on our soaring ground prior to despatch to the ends of the earth.

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OFFICIAL NOTICE

COUNCIL MEETING.

The 49th Meeting of the Council was held on Thursday, May 25th, 1933, at the Royal Aeronautical Society, at 6.30 p.m.

PRESENT: Col. the Master of Sempill (Chairman), Mr. E. C. Gordon-England (Vice-President), Sir Gilbert Walker (Royal Meteorological Society), Mr. F. Pilling, Capt. A. N. Stratton (Southdown), Mr. C. Redman (Thames Valley), Mr. J. A. Colls (Imperial College), Dr. A. E. Slater, Mr. Whidborne (Vice-President), Capt. C. H. Latimer-Needham, Mr. D. Morland, Mr. E. G. Sanguinetti (Kent), Mr. G. R. Ellingham (North Kent), and the Secretary.

Before the meeting commenced, the Chairman referred to the tragic loss which the British Gliding Movement has suffered as a result of the death of Mr. Lowe-Wylde, and as a mark of esteem a period of silence was observed, all members standing.

The Chairman then referred to Mr. Gordon England's appointment to the directorate of the Vacuum Oil Company, and on behalf of the Council congratulated him on having attained this honour in so short a time.

Among the business transacted was the following:

Conference.—The Secretary reported that so far three clubs had offered to undertake the local arrangements for the holding of the Conference. After discussion the Secretary was instructed to send the Council's thanks for the offers, and the matter was then deferred until the next Council Meeting.

Membership.—Mr. H. W. Lane, of Persia, was duly elected.

Next Meeting.—It was resolved to hold the next Meeting at Huish, on July 1st, at 8 p.m.

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