Feb. 20, 1931. Vol. 1. No. 24

THE SAILPLANE AND GLIDER

Price 3d.

SAILING FLIGHT IN DENMARK.

This delightful picture has been sent by a Danish reader. The make of the sailplane is not known.



TWO EVENTS OF IMPORTANCE.

On Wednesday, Feb. 11, the Imperial College Gliding Club held their annual dinner. This may seem to be merely gastronomic history and a fragrant memory to those who were there. But it was more important than that, and its significance is more than that of the usual cheerful gathering of students where the party spirit becomes a maximum.

On this occasion Colonel H. T. Tizard, C.B., F.R.S., the Rector of the Imperial College, was in the Chair, with Professor L. Bairstow, C.B.E., F.R.S., and Sir Gilbert Walker, C.S.I., Sc.D., F.R.S., and Herr Lippisch as guests. Previous to this dinner Professor Bairstow with slides and diagrams had explained the fundamental relation of streamline flow in a fluid to modern aeroplane and sailplane design, at a lecture arranged by the Imperial College Gliding Club. He had then made clear the difficulty of applying wind-tunnel tests on models to full-scale results, as frequently the former had to be made under conditions where the flow might be changing from laminar to turbulent with a marked effect upon the drag of the body. Now it seems to us that this fact is in itself a justification of the existence of the Imperial College Club.

We, with our wretched journalistic predilections and role of onlooker, who you should be reminded sees not only the most, but the trend, of the game, feel that the object of aerodynamics should be chiefly the making of better aircraft, but here a howl of execration will arise, and loudest from my friends at the Imperial College. Aerodynamics is a science, and therefore an object in itself, but we cannot debate the problem here. We believe that the more flying aerodynamicists do the better it will be for flying and the breed of flying machines.

Hence we welcome the Imperial College Gliding Club for two reasons. First, the Club is going to make our aerodynamicists fly as *pilots*; second, the equipment of the Club will supply apparatus for full-scale research. The Authorities, if the speeches at the dinner were significant, incline to the same views.

Second, the Imperial College Gliding Club was one of the first to be formed in the country, and although a year has lapsed, since its foundation, no other Club with similar objects has yet been founded. It is thus the only Club with the avowed object of increasing the scientific knowledge of the Movement.

At the end of the dinner Mr. Gordon England, in a speech whose eloquence so moved a distinguished visitor

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that he sighed for a verbatim report for dissemination in his native land for spreading interest in Motorless Flight, surveyed the Gliding Movement. He showed its relation to Aviation as a whole, that great weapon forged for war, but whose potentialities for the ensurance of peace are illimitable. Towards these potentialities such a Club as that of the Imperial College, with its practical and physical equipment for full-scale research, can take us far.

A Milestone.

In the early part of this week an arrangement, contract, or what you may like to call it, was signed between National Flying Services Ltd. and the British Aircraft Co.—soon to be limited in its liabilities but not activities. This hook-up, as our transatlantic relations would call it, is significant.

The organisation of N.F.S. aims at bringing Aviation to everybody's doors. The famous black and orange of its livery are known throughout the country. Its aerodromes are centres of aviation activity, scattered over England,—yeast in the dough of incipient airmindedness.

Mr. Lowe-Wylde was the first Englishman to design, build and fly a primary training machine, the safe-tobogganing capabilities of which type have saved so many air-minded enthusiasts from a gory demise. Not only was Mr. Lowe-Wylde's glider the first English one of its type to be flown, but it was the first Zogling-type glider to be flown in this country. He is thus the outstanding pioneer.

His firm, of Maidstone, is very rightly known as the British Aircraft Company, his conceptions and constructions are British. He has justified his existence by bringing into being types specially built for auto-towing,—types as yet, save for his growing export trade, confined to these Islands.

Now think what this conjunction of forces means. Demonstrations of auto-towing are to be staged throughout the year on the scattered N.F.S. aerodromes. To these demonstrations all enthusiasts are cordially invited by the Directors of National Flying Services. N.F.S. aerodromes will be available at nominal rates to local gliding clubs who wish to auto-tow thereon. Further, the instructional staff of N.F.S. will be available for giving auto-towed tuition.

Thus our Gliding Movement having survived a year of terrific struggles with amateur instructors, the anæsthetising mechanism of catapult launching, and the unobtainability of actually existing terrain, has now available professional instructors, strategically placed aerodromes and auto-towing, surely these are accelerating steps to the day when our first *ab initio* soarers will show our detractors how well-founded were our enthusiasms of a year ago.

Auto-towing Demonstrations.

Leeds (Sherburn-in-Elmet), Feb. 21-22; Hull (Hedon), Feb. 28-Mar. 1; Newcastle (Cramlington), Mar. 7-8; Blackpool (Stanley Park), Mar. 14-15; Nottingham (Tollerton), Mar. 21-22; and Reading (Woodley), Mar. 28-29.

A LECTURE ON METEOROLOGY.

One of the most important lectures yet arranged to benefit the British Gliding Movement has been arranged for 6.30 p.m. on Feb. 26. This is the lecture by Captain Entwistle before the Royal Aeronautical Society and the *British Gliding Association* in the lecture hall of the Royal Society of Arts at 17, John Street, Adelphi, W.C.2.

The Sailplane has since its inception laid emphasis upon the need for the Movement to study very carefully and energetically the science of meteorology which is concerned with those movements of the air which are the source of power to motorless aircraft. Everyone interested in Gliding who can possibly manage it should therefore make a point of going to hear what Captain Entwistle, who is the aviation superintendent in the Meteorological Office, has to say. Captain Entwistle was an outstanding figure at the historical meeting at Itford in 1922, and his knowledge of the behaviour of the weather and air currents was of the greatest service to those organising the meeting.

GLIDING NEWS FROM CAPE TOWN.

The Cape Town Flying and Gliding Club held its general meeting on Jan. 26, when Mr. Waddington, who was in the Chair, stated the new arrangements regarding solo aeroplane flights and Founder Membership Fees. He referred to their new primary glider now on exhibition, and stated that it was estimated the cost to members would be 2s. per glide and that it would take 30 to 40 glides to acquire sufficient proficiency to pass on to gliders of higher type—(Tree-toppers)!

During the evening the Chairman called attention to the notice of the Glasgow Gliding Club in The Sailplane of Dec. 19, 1930, and read the opening paragraph as an incentive to enthusiasm for concerted action; he also referred to the encouraging report of The Isle of Wight Gliding Club in The Sailplane of Dec. 5, 1930.

A ladies' committee was appointed to take charge of arrangements at the Club House at the Aerodrome. Mr. Castleman announced the opening also of a Club Room in Greenmarket Square. It is intended to hold a Flying Gala in the near future.—A. T. J.

AUTO-TOWING AT SHERBURN-IN-ELMET.

Demonstrations are to be given on Feb. 21 and 22 by the British Aircraft Company on the N.F.S. Aerodrome at Sherburn-in-Elmet, which is the headquarters of the Yorkshire Light Aeroplane Club. Members of *The British Gliding Association* and members of affiliated clubs are invited. One imagines that all enthusiasts and potential converts would also be welcomed.

Sherburn-in-Elmet is 14 miles east of Leeds, on the Great North Road, it is six miles from Tadcaster, 13 from Wetherby, 16 from York, seven from Ferrybridge, 22 from Doncaster, and nine from Pontefract.

A USEFUL TIP.

When Herr Lippisch was lecturing before the Westland Aircraft Society, which is the Yeovil branch of the Royal Aeronautical Society, a useful tip to glider constructors was given by Captain G. Hill, who pointed out that the brads which were used in Germany during construction and afterwards pulled out, were of steel. The use of this metal made possible the magnetising of the hammers, which could thus pick up the nails, and so avoid time and the smashing of fingers.

THE "SCUD" SOARS FOR AN HOUR.

At Totternhoe last Sunday Flg. Off. Mole soared the minute *Scud* for one hour two minutes. He was forced down by the dropping of the wind. The *Scud* thus justifies the aspirations of her designer, Mr. L. E. Baynes, who intended the machine as a high-performance light-weight intermediate type. The wind last Sunday as measured by a pitot head air-speed indicator placed two feet above the ground on the top of the hill showed an average reading of about 13-16 m.p.h. The wind would be stronger than that high up.

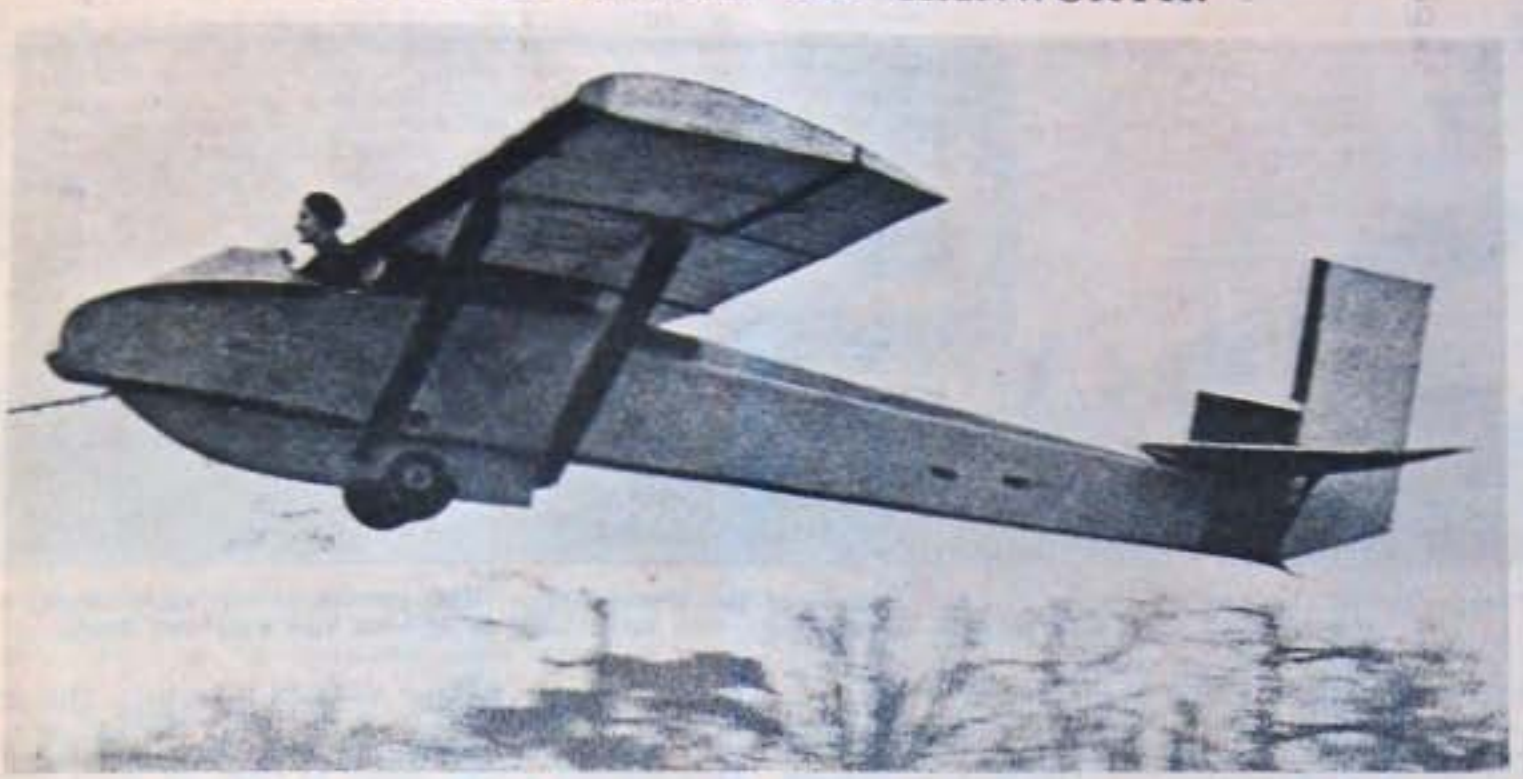
As the Prufling was flying at the time and was forced down when the *Scud* was, the British machine appears to have a similar sinking speed to the German, although the wing loading of the former is well over 3 lbs. per sq. ft. with a pilot of Mr. Mole's weight—which is not excessive. The *Scud* is remarkably clean and can conceivably have a better gliding angle than the Prufling. It would be instructive to have comparative tests made in the still air of the early morning.

One gathers that the *Scud* will be put into production and that a number are to be laid down.



SOARING FLIGHT.—The Prufling of the London Club with Mr. Buxton at the controls soaring at Totternhoe on the occasion of its near-two hour flight.

AN ENTHUSIAST AT HANWORTH.



THE B.A.C.V.—Miss Delphine Reynolds has some towed-tuition at Hanworth.

If you can imagine a flying meeting where the congregation take turns at flying the machines instead of loafing about in clots you have got the general air of last week-end's auto-towing picnic at Hanworth.

A full list of pilots would therefore require a special supplement. They ranged, however, from the energetic conspirator-in-chief, Mr. Lowe-Wylde, Colonel The Master of Sempill and Sir Alan Cobham, through the staff of N.F.S., to Flg Off. Needham (British C) and Mr. Shutte (Wasserkuppe C).

The moral issuing from the revelry is that the auto-towing divided the pilots into three groups—those who could fly anything up to and including rigid airships; those who hold power-plane certificates and who therefore cast-off the wire and reach the ground, somehow, under control; and strivers, knowing nothing, who come to no harm, learn tranquilly and enormously, and are shepherded throughout by the *controlling mind* at the other end of the wire.

Such people as Lowe-Wylde, Schofield, Findlay and Pennington simply drew free-hand curves all over the sky and landed at the starting-point, having been given the scope of a five-hundred-foot hill. The last three qualified on Sunday for their "B" certificates.

Power-plane "A" men, as a class, were relatively coarse-handed and obviously missed the second-guess effect of an engine. They resembled yachtsmen who for the first time were deprived of the hearty auxiliary engine that had until now pulled them over foul tides and from nasty places; they could not make proper use of their canvas. To this extent a power "A" man must benefit from obtaining a gliding "A" Certificate, especially as thirty seconds of free gliding cannot be obtained by auto-towing in an average aerodrome without a considerable amount of turning, unless the wind is strong.

To show the effect of auto-towing on beginners Mr. Lowe-Wylde took what seemed to be a fairly long chance. In front of the crowd, once when it was at its largest, he twice towed an *ab initio* who was avowedly a catapult crasher, and also a shade too long in the tooth for the easy learning of new tricks. The experiment came off. The machine was held off the ground, steady on all controls, so long as the Bentley travelled sufficiently fast.

The catapult-crasher swears by all his gods that at last he has *learnt* something; that he had *time* to think in peace and quiet; and, above all, time to reason, to experiment, and to *appreciate faults*, which means to correct them. The correct air-speed is dictated by the driver. The amount of vital rudder and elevator-practice was equal to about ten week-ends of average luck in a gliding club; and, what is more, it was not vitiated by long intervals between lessons. Auto-towing gave him a chance to lighten his darkness by quiet thinking, with an extra blessing thrown in; if once he had begun to go badly wrong the auto-tower would have lowered him out of harm's way.

The fool-proofness of auto-towing was demonstrated when a lad, who knew nothing outside of X-chasing, bluffed his way into the advanced machine and was given a respectful amount of wire. Bentley never allowed him to take-off, for so soon as he moved he began to yaw this way and that, until he finished with one wing on the ground and with the machine pointing in the wrong direction. And even under such startling conditions no harm was done, until he later remarked with patronage that "of course, the rudder isn't very good, anyhow." Only his spectacles saved him from two lovely black eyes.—S. H.

AS IT WAS IN THE BEGINNING.

[Quaternary Epoch: Post Pliocene Period.]

Sir Prufling sat on a rock and sought
  Refreshment from his stick;
A pterodactyl fluttered by
  And tried to kick.

But as for "Pruf," the kind of rock
  He sat upon was shale.
One feature quite distinguished him,—
  He had a tail.

The danger past, he fell into
  A reverie austere;
While with his tail he whisked a fly
  From off his rear.

"Gliders deteriorate," he said,
  "Grow weak and incomplete;
"And each new generation seems
  "Yet more effete."

"Nature abhors imperfect work,
  "Her view is still no wider;
"And all creation must despise
  "A tailless glider."

"But fashion's dictates rule supreme,
  "Ignoring common sense;
"And fashion says to dock your tail
  "Is just immense."

"Gliders are now being built, they say,
  "With half a tail or less;
"Too stumpy to convey a thought,
  "And meaningless."

"It kills expression, how can one
  "Whenever the controls fail,
"Pass on the feelings of the stall
  "Without a tail?"

Sadly he mused upon the world,
  Its follies and its woes;
Then wiped the rust from off his bolts
  And blew his nose.

Then clad in plywood, Lady Pruf,
  Came gliding down the dale;
And smiling now, Sir Pruf arose
  And wagged his tail.—J. R. A-C.

[And all because Rumour reports a tailless glider is now being built.—Ed.]

THE "FALKE."



Three views of the "Falke" taken by Mr. Crabtree at the Wasserkuppe. The picture on the right should be studied as it shows how to moor a sailplane. The lower wing is up-wind and weighted down.

REPORT OF FLYING TESTS ON THE "FALKE."

[We have abstracted from "Flugsport" a report by Herr F. Stamer, the famous principal of the Flying School at the Wasserkuppe, on the flying qualities of the Falke. So much interest is being taken in this machine, the plans of which are available from the B.G.A. at 44a, Dover Street, W.1, that we feel a report of this kind will make the reasons of the Germans for changing over to this new type.—Ed.]

Up to the Summer of 1930 the Prufling was almost exclusively used at the Wasserkuppe for training and practice. This machine had proved preferable, chiefly because of its good control qualities. It was only its unusually high diving speed with the consequent excess of sensitivity of the elevator-control in diving attitudes that made some change desirable. A machine with greater soaring ability was also required, as the lowest wind in which the Prufling could soar at the Wasserkuppe was one of 8 m. per sec. (17.9 m.p.h.).

Much data has recently been collected about tailless aeroplanes, and many of the characteristics are especially suitable for a training machine. The swept-back wing has a stable centre-of-pressure, with consequently good elevator control, and the wash-out, that is decreased incidence at the wing-tip, improves the aileron-control, which is further enhanced by the attachment of the aileron aft of the trailing-edge.

The swept-back wing also makes possible the placing of the pupil further aft in the fuselage. This means increased safety on crash and also gives the pupil a better "horizon" in that a considerably increased length of fuselage is in front of him, which enables him to judge the altitude of his machine more accurately.

The flights made by Herr Stamer, as well as by the pupils, confirmed all these expectations. In the Wasserkuppe district it will soar in a wind of 6 m. per sec. (13.4 m.p.h.). It is extraordinarily sensitive on all the controls, yet there is no tendency to "hunt" if the elevator control is moved awkwardly and suddenly. The machine is also easier to turn, as it answers well to the aileron control. [*There appears to be no mention of the fact that "sweep-back" is a definite antidote to "spinning."*—Ed.]

In the course of the trials the machine was side-slipped and dived spirally both to the right and left; several soaring flights of one or more hours' duration were made. Cloud-flying and "C" tests were also done on this machine.

The *Falke* represents without doubt a real improvement on the Prufling, and at the Wasserkuppe is universally considered to be one of the best motorless aircraft to fly.

The shorter fuselage, with its widely diverging longerons, is more rigid than that of the Prufling. The tail-unit and wings are so strong that after a great number of flights, when landings had been made in various attitudes, and sometimes quite heavily, no damage could be found, consequently demonstrating a greater strength than that of the Prufling.

AN ENGLISHMAN'S VIEW OF THE "FALKE."

During the last two weeks members of *The British Gliding Association* and Affiliated Clubs have received a circular concerning the plans and licence to build the new German intermediate machine, called the *Falke*. For the total sum of £5 the plans and rights to build this much-talked-of machine can be obtained.

But I feel that as I am one of the few in this country who have had the good luck to fly this machine, a few words of my experience when flying it would greatly help Clubs to decide whether to build it or not. This criticism must be considered as from the pilot's point of view. Not after a little sailplaning has been done, and the first few facts realised, a pilot begins to judge an intermediate sailplane on the following lines:—

He wants the machine to be light in weight and fairly slow in flight, yet with the controls acting with as little sloppiness as possible. Also, if the machine is capable of making as good a flat-drift turn as it is of making a good clean banked turn, it is even more easy to soar.

Now the *Falke* is a rather heavy intermediate machine which answers to her controls extremely well, in every way very much above the average German intermediate machine, as it was designed to do. It is not a very good "light wind" sailplane on account of its weight. On the other hand, it encroaches on the sailplane proper and can even be compared, quite favourably, with the *Professor*. Thus the *Falke* is looked on in Germany as an advanced inter-sailplane, to be used only by pilots who have already gained some knowledge of sailplaning on light wind types.

In the school at Wasserkuppe the writer used it for flights for his final training before his "C," and actually made his "C" test in it. A sailplane pilot when criticising a machine is always expected (especially an intermediate type) to criticise the construction of the machine with a view to repairs. The writer was lucky (or unlucky, as he then thought) to have to help with repairs to the *Falke*.

The fuselage is of the usual German construction, and therefore extremely simple to repair. The skid, with rubber shock absorbers, protects the fragile fuselage from stones, etc., on landing, though the tail skid could be made a little deeper, as the *Falke* sits on her tail almost immediately after touching the ground, and bumping over any stones is liable to rip open the tail end of the fuselage.

The wings are of an extremely difficult construction, and are therefore difficult to repair. The joint of the front spars, directly above the pilot, was badly designed in the *Falke* I used at the Wasserkuppe, and after the slightest pancake landing had to be attended to. Moreover, sometimes, audible groans could be heard by the pilot during flight.

This has probably been re-designed in the new machine, but I strongly advise any club who builds this machine to keep a constant watch on this point of the machine between flights.

To sum up: My advice to any Club who are thinking of building this machine is as follows: It is an excellent machine for soaring in a definitely strong up-current; it is extremely easy to handle if the pilot has already gained some soaring experience or is a power pilot; it is easy to build, except the wings, which are complicated and awkward, but once built will give such opportunities for soaring flight as are available from no other intermediate sailplane which I saw in Germany.—R. S. C.

[*Mr. Crabtree's views are undoubtedly interesting, especially as he is an ab initio pilot trained completely in Germany. His experience is therefore limited to what he saw and learnt in Germany during a stay of a month or two. His chief criticism is that the wings are difficult to repair, but he does not criticise it from the standpoint from which it was designed as a replacement for the "Prufling," and how well Herr Lippisch succeeded in his task may be gauged from Herr Stamer's report, which precedes this. Herr Stamer has been for the last ten years the chief instructor of the R.R.G. gliding and soaring school on the Wasserkuppe.*—Ed.]

MY FIRST GLIDE.

After weeks of verbal instruction, practice slides along the round, and much hefty catapulting and retrieving for the ther chap, my own turn came for a trip above the earth. was perfectly certain that I should not make such a fool f myself as the other *ab initios* had done. How anyone ith a modicum of sense could possibly fail to manage the lider equally as well as the instructor passed my compre-ension.

All one had to do on this first flip was to keep the stick the position demonstrated by the instructor and the lider would take off on its own, glide by itself and land ithout any further effort on the part of the pilot. There as a distance of about one hundred yards to cover. So asy!

Even if the machine pitched, yawed, or rolled I was word-erfect on controls. For nights on end I had rehearsed very move, every possibility in the game. I knew how to el for the gliding angle as I took off; how to ease the ick back slowly as the machine sank to earth; and how to ccept with becoming modesty the plaudits of my fellow-embers on the result.

No! I just could not fathom the mentality of some of the eginners. Must have been sheer carelessness, or just over-onfidence. Now with me, of course, there would be none f that.

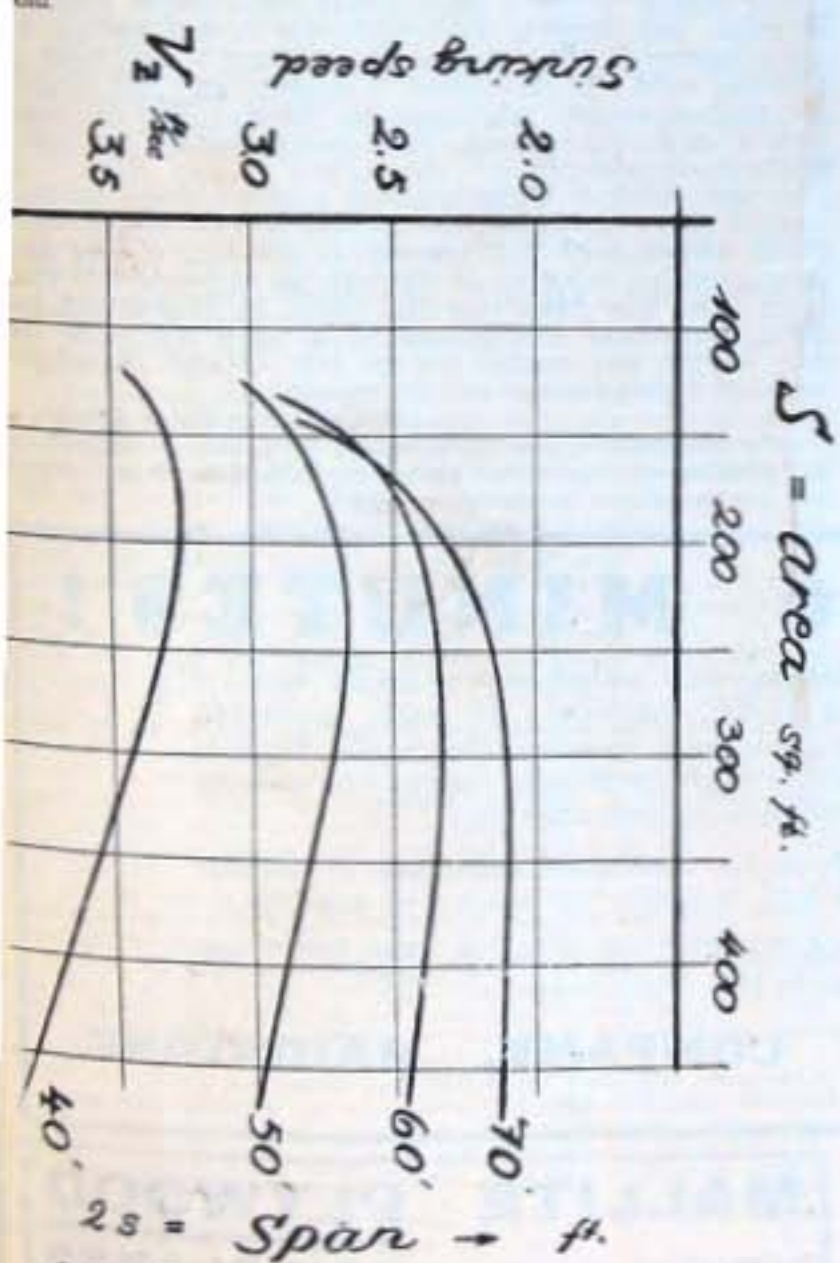
I sat in the bucket seat and gripped the joystick firmly ith both hands.

"Strap yourself in unless you want to take a toss!"

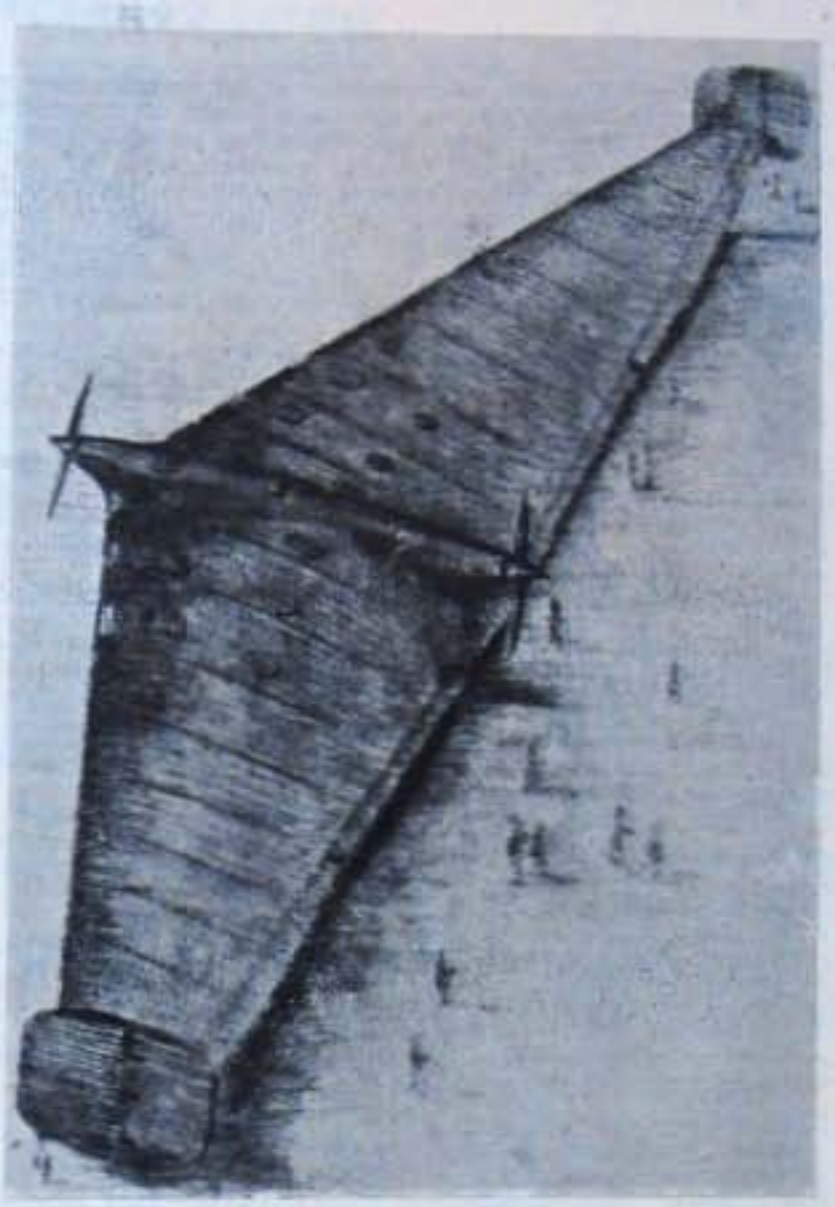
I looked up indignantly at the instructor. Did he think was an absolute ninny. Of course I'd fastened the ——.

"Sorry!" I exclaimed, and fastened it round me. My ft foot seemed to be taking shocks through the rudder ar. It would not keep still. I was not nervous: the udder bar merely wanted adjusting only I wouldn't hold up he show for a little thing like that.

"Don't grip the stick as though you were steering a teamroller. One hand will do! Grip lightly!" I was old.



One of Herr Lippisch's graphs which shows the correlation of sinking speed, span and wing area.



THE ULTIMATE.—Herr Lippisch's all-wing passenger-carrying machine of which the tailless glider shown last week is the experimental prototype.

I took my left hand away but didn't know exactly where to put it for the best effect. There were no other controls to grip. After searching about for a resting place it finally took a firm hold on the side of the seat.

My left foot recommenced its dithering and I firmly suppressed it, only to find that my right foot showed the same tendency.

"Are you ready?"

"Ye—yes!" I managed to stammer and somehow or other obtained that facial expression which I had been practising for weeks. A rude female relative called it a cross between Douglas Fairbanks in a tight corner and the picture of the happy warrior.

"RELEASE!"

That is how I thought it sounded. They told me afterwards that all they heard was—RELEASE!

"Ough! I wonder if the stick is right. What is she going to do? Was it left stick or——we're up.

A rush of air past my ears . . . . a blank . . . . nothing but a whizzing sensation . . . . forgotten all rules and regulations . . . . don't even know what I'm sticking hold of . . . . just up in the air, physically and mentally . . . . glorious . . . . bet the instructor didn't reach this height . . . . I'll show them . . . . knew I could do it . . . . what's wrong . . . . wind dropping . . . . NO! ME! . . . . good Kitty, nose first . . . .

I remembered the stick in my hand and yanked it back into my tummy. She wouldn't answer. I'm for it. No! we're flattening out. Will she do it? Just a chance! Crash!!!

"What's happened?" I heard my voice through the fog. A row of faces . . . . some gibbering as they floated about above me . . . . cynical smiles . . . . scowls . . . . the instructor's voice, "Didn't I warn you about stalling her, etc., etc. . . . . "

I spat out the earth and dug several spars from my left ear. Like a wall-eyed cow I stood upon my hind legs and faced the company—just one of the common herd.—JOYSTICK.

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CORRESPONDENCE.

The Gliding Exhibition.

Sir,—I think the idea of holding a glider exhibition is a most excellent one, because not only would it prove, as you say, an excellent means of stimulating public interest, but it would certainly add cash to our coffers.

I am endeavouring to get such an exhibition assured, but once again it is a question of (a) cash with which to hire the hall, or whatever is to be used for the purpose, (b) a guarantor for the rent, etc., (c) someone who is willing to place accommodation at our disposal free, such as motor showrooms, etc.

One thing we are sure of, and that is, that the manufacturers would co-operate by the loan of machines, and parts, etc.

Then, in the event of the exhibition being brought to a successful issue, we would certainly go all out to help the clubs organise such exhibitions.

(Signed) J. L. R. WAPLINGTON
(Secretary, British Gliding Association).

Sir,—Concerning the suggestion of a gliding exhibition contained in your editorial of last week, this is an excellent idea, for here at last is a really practical way in which the B.G.A. can show itself in its true colours.

There is little doubt that manufacturers and the clubs would support to the fullest extent and if really carefully organised there is little doubt that it would be invaluable propaganda.

However, someone is likely to suggest that it be organised within some big store, to save expense, but this should at all cost be avoided; gliding has already been used far too often as a publicity stunt for others, and the time has come when it should advertise on its own behalf.

Before closing may I congratulate you on the increase in size of last week's issue, and express the hope that this growth is permanent.

(Signed) "AUDAX."

The Other View.

"KENTIGERN" writing to the Editor says that it will be time to have an exhibition when there are at least four types of British sailplanes, not intermediates. At present any reasonable soaring craft should be put on the nearest windy hill and left there,—presumably until the pilots have broken all and every record extant.

The Need for a Film Library.

Sir,—May we endorse Mr. Rice's suggestions for a film library, and in doing so, allow us to clear up two points which Mr. Rice has obscured, viz., that the Cononley Club owns a film entirely through the generosity of Mr. Rice himself, and that Mr. Rice would make a librarian of no mean order—those who have seen his caravan film will agree that it is a work of art, particularly the sub-titles.

We suggest that Clubs send their films to Mr. Rice, leaving him to cut, arrange, and insert sub-titles as he thinks best, and then each Club borrowing the resultant films, to pay a small sum for the hire. This will allow of the cost of sub-titles, repairs, materials, etc., being met. Of course, each Club's film should bear its name in the form of a title that due credit will be given to those subscribing.

Anyway, if this scheme falls through, will Clubs pl note that Cononley's films will be available on loan to t interested.

(Signed) H. M. SELLERS
(Hon. Sec., Cononley and District Aero Clu

[*This scheme must not fall through. It has our ea support.*—ED.]

From America.

Sir,—THE SAILPLANE of Jan. 16, page 148, column 1, st "Auto-towing is dangerous. There have been a nu of people killed in America, where it was adopted enthusiasm."

The inference is that the number of people killed killed through auto-towing. As a matter of fact, so f I have been able to learn, there never has been a killed in any glider school in America using the aut method of launching.

In 1929, the last year for which complete figures available, there were eleven fatal accidents to glider in the States. As I recall, either seven or nine o eleven were licensed power aeroplane pilots, and the jority of these held transport licences.

A few of the fatal accidents undoubtedly occurre flights initiated with an auto-tow rope, but they, wi exception, so far as official records show, were d sheer carelessness on the part of people who should known better. Pilots died trying to stunt gliders, in ticular, trying to loop, without understanding the pe wind conditions under which a motorless ship ca looped. Most of the experienced pilots killed on g however, were towed into the air by power aeroplanes not by automobiles.

In the schools where auto-towing is being used su fully to train primary students there not only have no fatal accidents, but less damage to gliders than ap to be experienced with shock-cord launching. The Cl Glider School, where I trained, had three major acc to ships, and none of them were due to auto-towin one a mechanic left a ship unguarded and it blew aw a strong wind. In the second a student, who had fa his eye-test report, misjudged his distance and sat with a wing over a fence, when he believed he was inside the boundary.

In the third I foolishly dived a glider from 600 levelled off at the grass-tops, found I had more speed I had anticipated, and, instead of dropping a wing ground-looping, tried to get through an auto-gate in a fence. Got the wings over the fence, by pulling bac stick, but a drag wire caught on a fence post, spu ship around and washed out the tail surfaces. Save wings and didn't get a scratch myself.

(Signed) JAY EARLE MI

[*We are glad to have first-hand evidence in supp our contention that auto-towing is an ideal method of ing under proper supervision.*—ED.]

3 "B's" in 30 MINUTES

Read what happened at Hanworth last Sunday, and realise how YOUR training can be speeded up by Auto-towing with a B.A.C. machine. *Ab initio* pupils can all be brought along together; no crashes to impede progress, the pupil's flight is under control all the time. When you have enough candidates ready, Auto-towing will enable you to collect a bunch of Certificates in one afternoon.

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NEWS FROM THE CLUBS.

WHERE GLIDING CAN BE SEEN.

Beds.—The Bedford Gliding and Flying Club. Week-ends at Wilstead Hill, 5 miles from Bedford on Bedford—Luton road.

—The London Gliding Club. Meeting place, Turveys Farm, near Tottenhoe, on Saturdays and Sundays.

Dorset.—See under Somerset.

Edinburgh.—The Edinburgh Gliding Club. Sundays, at West Craigs Farm, between Corstorphine and Turnhouse Aerodrome.

Glam.—Merthyr and District Gliding Club. Sundays, 10 a.m. to sunset. ¼-mile left Dynevor Arms, Merthyr Tydfil—Swansea Road.

Hants.—Surrey Gliding Club. Sundays from 10 a.m., weather permitting, at Stocks Farm, Meonstoke (Old Winchester Hill).

Hereford.—The South Shropshire and North Herefordshire Gliding Club at Dunmore, ¼-mile from main Hereford-Ludlow Rd. Every Sunday, and Thursday from 2 p.m.

Herts.—Herts. and Essex Gliding Club. Sunday afternoons, Eastern Roadways Garage, one mile north of Stortford.

I.O.W.—The Isle of Wight Gliding Club. Whiteley Bank, near Godshill. Every Sunday from 11 a.m.

Kent.—Channel Gliding Club. Adjoining Hawkinge R.A.F. Aerodrome, 2 miles from Folkestone, on main Canterbury road. Every Wednesday and Saturday afternoon and all Sunday.

—North Kent Gliding Club. Saturdays 1 p.m., Sundays 10 a.m. Joyce Green Aerodrome, near Dartford.

—Kent Gliding Club. Week-ends above Lenham, on the Maidstone—Ashford road.

—The Isle of Thanet Gliding Club. Saturdays and Sundays from 2 p.m. Manston Aerodrome, Thanet.

Lanark.—The Glasgow Gliding Club. Barrance Farm, Easter Whitecraigs, near Glasgow. Every Sunday from 11.15 a.m.

Lancs.—The Furness Gliding Club, at Gleaston Park Farm, Gleaston, near Ulverston (midway between Gleaston and the Coast road). Sundays 10.30 a.m., by arrangement and weather permitting.

—The Stockport Gliding Club. Every Sunday afternoon at Woodford Aerodrome, Manchester.

—The Preston and District Glider Club. Week-ends at Butler's Farm, Beacon Fell, 2 miles from Inglewhite and 7 miles from Preston.

Notts.—The Nottingham Gliding Club, Mr. Ellis's Farm, Kneeton Road, East Bridgford, Notts. Every Sunday, weather permitting.

Somerset.—The Dorset Gliding Club, Westland Aerodrome, Yeovil.

Staffs.—The North Staffs. Gliding Club. Week-ends at The Downs Banks, Barlaston Downs, near Stone, Staffs.

Sussex.—The Southdown Skysailing Club. Sundays from 10.30 a.m. Newmarket Farm, near Palmer.

Warwick.—Rugby District Gliding Club. Cote Hill Aerodrome, Husbands Bosworth, Rugby.

Wilts.—The Wiltshire Light Aeroplane and Glider Club at Easton Hill, Alton Priors Range, Bishops Cannings, near Devizes.

Worcs.—North Cotswold Gliding Club. Every Sunday at Fish Hill, above Broadway Village, from 10 a.m. to sunset. Saturdays and Wednesdays from 2 p.m.

Yorks.—The Bradford Gliding Club, at The Pastures, Apperley Bridge. Saturday 1.30 p.m., Sunday 9 a.m.

—The Huddersfield Gliding Club. All day every Sunday at Bradley Dale, Huddersfield.

—The Leeds Gliding Club. Week-ends at Warfedale with the Harrogate Club.

—The Scarborough Gliding Club. Every week-end at Flixton.

[Clubs are invited to send in full details as to where and when they can be seen at work. This feature should help Clubs considerably as readers who are not members can go to look at the nearest local Clubs and see which they like.— ED.*]*

THE CHANNEL GLIDING CLUB.

Anent the Editor's footnote to our contribution of last week, "*Experientia docet.*" Very true. It is teaching us, and it is because we hope that our bitter experiences may be a warning to others that we publish frank accounts of our folly: and our folly has in this case been extreme, in fact, we appear to be becoming so infantile that we are thinking of changing our name to The Flannel Gliding Club.

Last Sunday we lost our ring. In the afternoon we scoured South-East Kent for our ring. We failed to find our ring. On Wednesday we went to some trouble to borrow a privately-owned one. On approaching the R.F.D. we discovered our ring. It had been carefully threaded on to the control column, and had escaped notice because of a huge leather coat which was littering up the seat. Can you beat that. Still, we are going to be better boys in future and we hope that in time father will come to think quite a lot of us.

On Wednesday, Feb. 11, the R.F.D. was taken out for towed flights. The wind was estimated at 25 m.p.h. Some difficulty was experienced in holding the machine down in the gusts as the crew, including the driver of the car and the pilot, totalled only five. A start was made, the machine becoming air borne immediately the car moved off. Despite the frenzied efforts of the pilot, the glider pursued a very drunken course, but was retrieved whole.

One more flight was made, after which the instructor pronounced conditions too dangerous and the machine was with difficulty returned to the hangar. We have since read that at Lympne, a few miles away, on this particular afternoon, the wind reached 70 m.p.h. We are congratulating ourselves on the fact that we still have the R.F.D.

On Saturday, Feb. 14, the wind was very high, so it was decided to spend the time in a general overhaul of the tail unit of the R.F.D. which was beginning to show signs of wear.

On Sunday, Feb. 15, conditions were frightful in Channel country. The snow lay round about, but it was very far from being deep and crisp and even. Gliding was considered to be impracticable, so three members set off for London to collect *Minnie*, and also incidentally to see Mr. Lowe-Wylde perform at Hanworth. *Minnie* is a 20 h.p. Minerva of very solid build which has been acquired (it would be an exaggeration to say that it was bought considering the price paid) to take over the auto-towing from Mr. Turner's Diatto, which is really far too good a motor-car to be chased across a none too level aerodrome. The Club owes Mr. Turner a tremendous debt for the way in which he has allowed his car to be systematically broken up in the interests of the members. We are glad that in future it will not occur.

Hanworth was intensely interesting. May we be allowed to doff our headgear very respectfully to Mr. Lowe-Wylde for the masterly way in which he handles his machine, and to thank him for allowing our Mr. Turner to fly one of the B.A.C.s.

We wonder what it feels like to be a Press photographer when Mr. Lowe-Wylde comes swooping down in that harrowing way to miss by what appears to be merely inches. We admired very much the work of the Austin Seven retrievers, but we are tempted to inquire:—(a) what is the consumption in cigarettes per day of the green one? and (b) the consumption in gallons of water per second of the black one, and whether it hurts?—E. C.

THE LEEDS GLIDING CLUB.

We had a very good day at Weeton on Sunday, Feb. 15, every member present having a number of flights. Mr. Thompson started the day well with a very fine 40 sec. flight, whilst Messrs. Wallis, Richardson, Stedman and G. Jefferson did some really good glides. Because of the strong, gusty wind we had to be careful with the "lesser lights," but we ended the day with the machine "whole" and all very satisfied.

It was an interesting meeting, four machines being present, the Harrogate Dickson, Bradford's Dickson, Mr. Sutton's new *Airedale* and our own. Also our instructor flew in a Moth and tried a spot of soaring. (Moths are no better at soaring than Reynards—worse, if anything.) The star turn of the day was, as usual, Mr. E. T. W. Addyman (Harrogate) on the H.A.C. Dickson. On one flight he was up 70 secs. Mr. Verity demonstrated the *Airedale*, which is an example of clever design and good workmanship and will compare with the best. Yorkshire throughout!!

We are busy in our workshop making a new fuselage for Reynard I and also rebuilding a wing. Luckily we have one or two members who detest flying but simply love sticking pieces of wood together—queer chaps—but we wouldn't be without them.

Mr. W. G. Adam's soarer is rapidly taking shape and the writer's home is littered with ribs, rudders, spruce and glue. At the present rate of progress these two soarplanes should soon be ready.

The team for the Harrogate competition on Feb. 22 will be as follows:—Messrs. C. W. Richardson, A. G. Wilson, Wallis, G. Jefferson, Thompson, R. F. Stedman, and either A. Gomersall and J. W. Smith or Wm. Adams and Wm. Bramham.

We are looking forward to lifting that cup.

THE LONDON GLIDING CLUB.

The last three week-ends have seen a considerable amount of activity within the Club, and a large number of instructional flights have been made, with the result that a fresh crop of "A"s is expected shortly. The Prufling has been in the wars once again, as a cow got loose on the farm where it is stored, and decided to make its bed on one of the wings. This procedure whilst greatly improving the streamlining, did not however leave it with adequate structural strength, and the Club constructional section had to be called into action. This section put in a particularly fine piece of work by starting repairs at 9 p.m. and completing the job by 7 a.m. the next morning. Then they retired to bed and awoke to find totally inadequate wind for soaring.

Last week-end, Feb. 14 and 15, was one of considerable activity, and on Saturday the Zogling was hard at work. Sunday was an excellent day, and three machines—the Zogling, Prufling and the *Scud*—were all in operation. The event of the day was the *Scud*, which has been undergoing careful trial for the last three week-ends and was given its first opportunity to soar. Flg. Off. Mole took it off from the top of the ridge and soared for one hour two minutes. The machine appeared exceptionally controlable, and reached a height of about five hundred feet. This is, we believe, the first real soaring flight to be made on an all-British machine since 1922, and it is interesting to note that both its designer, Mr. L. E. Baynes, and its pilot, Mr. Mole, are both members of the Club. The average wind speed for the day was 14 m.p.h.

Flg. Off. Needham then soared the Prufling for about four minutes but landed to leave the course clear for the *Scud*. This is the first occasion when two Club members have been soaring at the same time. After the *Scud* had landed Mr. Williams took off in the Prufling and made an excellent flight of 11 mins. 4 secs., which was the final qualifying flight for his "B" Certificate. Several other shorter flights were also made on the Prufling. This machine has recently been equipped with a specially low reading air-speed indicator, manufactured by Smith's Aircraft Instruments Ltd. It reads from 10-50 m.p.h. It would appear that the best soaring speed is about 28-30 m.p.h., and landing speed about 18-20 m.p.h.

On Friday, Jan. 30, the Club gave an informal dinner of welcome to Herr Lippisch, at the Holborn Restaurant, and presented him with a Club badge and an honorary life membership of the Club.

The first annual general meeting of the Club will be held in the library of the Royal Aeronautical Society at 6.30 p.m. on Wednesday, Feb. 25. There are still some vacancies in the instructional group, and those interested should write to the Secretary, The London Gliding Club, Empire House, St. Martins-le-Grand, London, E.C.1. Tel.: National 8882.

THE KENT GLIDING CLUB.

The Annual Dinner will be held at The Royal Star Hotel, Maidstone, on Feb. 23, at 8 p.m. Tickets 6s. 6d. This date is the first anniversary of the day on which Mr. Lowe-Wylde made his first flight on the Club's original machine, and was the first flight to be made on a Primary training glider in Great Britain. The President, Col. The Master of Sempill, will be present, and it is hoped that all members will do their best to attend.

Members' friends will be admitted.

A meeting was held on Feb. 9 for those interested in Model Aircraft construction. Prizes have kindly been offered as follows:—Mr. L. Marchant, £5 for longest duration flight of any type of Model.

Mr. T. M. Best-Dallison. £2 10s. for longest duration flight of power-less Model. Also £2 10s. for the furthest distance covered by a power-less Model in flight. The date fixed for the Competition is April 19, 1931. Further details can be obtained from the Honorary Secretary.

THE NORTH COTSWOLD GLIDING CLUB.

On Jan. 25 the wind again blew up the nursery slope, but as there was a change of a few degrees in the direction favourable to long glides without the necessity for any turning, the visitors from the Warwickshire Gliding Club took full advantage of the opportunity to do considerably longer flights than on the previous Sunday.

In view of the limited scope upon the nursery slope it was decided that the operations should be of a comparative rather than of a competitive nature, therefore the respective captains of the club teams were free to decide the nature of the strategy and tactics to be adopted to show the good points of their club discipline and skill.

The North Cotswold Club machine was first out on test by Mr. Horace Wright, the Instructor of the Cotswold Club, who was closely followed by Mr. Bromley, who was one of the only two pilots of the visiting club, on the Warwickshire machine. Then the proceedings settled themselves into a free and easy procession of flights, evidently intended to demonstrate the "staff work" and flying skill of the friendly rivals.

Apparently the object of the visiting pilots (Messrs. Bromley and Derry) was spectacular effect in the form of high wild zooms and switcherback effects. The tactics of the North Cotswold team, represented by Miss Marion Cocks-Johnson, Miss Evelyn Moore, Mr. Ernest Nowe, and Mr. W. Jacques, captained by Mr. Horace Wright, approximated to the form which has throughout typified the work of this club—steady, evenly-controlled, unspectacular flights.

In spite of the very difficult conditions, the event concluded with only a single breakage—the facture of a bracing wire upon the Warwickshire machine during a heavy landing.

In the evening the representatives of the two clubs met for tea at the St. Patrick's Tea House in Broadway, after which Mr. Douglas Derry, of the Warwickshire Gliding Club, expressed the gratitude of his fellow-members to the North Cotswold Gliding Club for giving them the opportunity to come to Broadway, and to Mr. Horace Wright for the trouble which he had taken to make their visit a pleasant and successful one.

In reply, Mr. Wright assured the visitors of the pleasure it had afforded him and his executive to render any service to the gliding movement, and he hoped that their friends would be successful in finding a suitable site on which to practise gliding and make more progress towards training up to the certificate stage. He concluded by looking forward to the day when they would be able to indulge in real competitive sail-flying along the ridges of the Cotswolds.

THE NORTH KENT GLIDING CLUB.

We have a tale of woe defeated to unfold, and as some of the newer Clubs may be able to benefit by our bitter experience, we do not hesitate to rush into print and to state frankly our mistakes.

We started our training about three months ago, an enthusiastic crowd with a very efficient machine. Members were shot into the air after only one or two "Slides." In consequence we have had numerous crashes resulting from bad landings, etc., and repairs have cost us an alarming amount of good money. The position was so serious that after an investigation into affairs it was decided by the Committee to begin training all over again. Every member, without exception, has to effect ten good slides before leaving the ground. We put this scheme into operation yesterday, and judging by some of the performances, it was not unnecessary.

We used a single rope (acknowledgments to the Falkirk Club), and achieved long slides, the machine was controllable for a distance of 100 yards, without the usual sudden acceleration associated with the "vee" method. As this method of launching needs a large rope crew we decided to use a car in the place of the crew. With a 50 ft. hemp rope between the end of the elastic rope and the car, the method was a huge success. A car speed of 5 m.p.h. was necessary with light pilots, and 8 m.p.h. with heavier pilots. Our heavyweight needed 10 m.p.h., but not even in this case was the car in danger of being catapulted back to the glider. All this, of course, was on flat ground. It was unanimously agreed that it was the most instructive meeting we have held.

In short, we have at last realised the value of Herr Kronfeld's words, "Make haste slowly."

R.Ae.S. MANCHESTER GLIDER SECTION.

On Sunday, Feb. 15, two members of the above Club drove up to Totternhoe specially to view the tests which the London Gliding Club were making with the Brant *Scud*.

After an excellent run up, we found considerable activity taking place. The Junior Section were busy with the Zogling and put up some interesting short flights. The Intermediate Section gave a good show with the Prudling, and Fig. Off. E. L. Mole was flying the Brant *Scud* in excellent style and was endeavouring to put up a duration record. Mr. Mole made a good landing after having been in the air for 62 minutes.

After congratulating the pilot, Mr. Mole, and the designer, Mr. Baynes, on the very fine performance, we were able to have a close examination of the machine, which increased our admiration for it.

Mr. Mole stated his high opinion of the machine, and after witnessing such a fine flight we can thoroughly recommend the machine to our colleagues at Manchester and all Clubs and persons interested; we predict a busy time coming for the Brant Aircraft Ltd. of Croydon. We can also recommend the Clubs or members in the North to have a run up to Totternhoe to see things, and they won't be disappointed.

After arriving home in good time we considered we had been amply repaid for going 220 miles to see the Brant *Scud* and Totternhoe.

On the 18th inst. we are going to see the North Cotswold Club at the "Fish," Broadway, and on the 22nd will probably go to the competitions at Harrogate.—G. M.

THE SCARBOROUGH GLIDING CLUB.

Weather conditions have been all against gliding for the past few days. This is to be regretted, as a number of members are anxious to become more proficient, in view of the "Bumper-Demonstrations" in which they will be taking a prominent part next June.

On some day, and in some manner, of which the writer has no perfect knowledge, the Zogling has once more encountered an "unmovable obstacle" and is badly "piled up."

Rumour is rife of great doings in the "Holy of Holies" of the Club the Powers that Be have been in conference with Mr. Gordon England and others, but up to the time of going to press no bulletin has been issued. Is the Club going to build a fleet of bomb-dropping super-gliders? Has it secured the patronage of Mr. Henry Ford? As they say in the "ordinary" papers, "WATCH THIS SPACE."—E. C. T.

THE SOUTHDOWN SKYSAILING CLUB.

On Feb. 15 the usual meeting was held near Palmer, but owing to a strong northerly wind flying was not possible during the morning, so members spent the time prospecting for likely sites. One or two attempts were made before lunch, but owing to down-currents and the awkward lie of the land nothing was done till after 2 p.m., when the wind having dropped instruction was given on the lower slopes of the hill.

Our tractor again gave Trojan service, and because no machine handling was required to bring the machine back there was keen competition to get on the launching rope. Messrs. King Smith and Lawford again applied mechanical power to save us hard labour. By the use of 200 yards of rope and a block the machine was pulled up the steepest slopes, the car was run downhill and the glider went up.

Marked progress was made by Messrs. Ely and Lawford. Messrs. W. N. Wood and Parker were launched from the top of the hill.

[*Information from another source tells us that in addition to [illegible] retirement, as reported in our issue of last week, of Mr. Ye[illegible] Bramble, the General Secretary, two other officers of the Club ha[illegible] resigned, namely, the Flight Secretary, Lieut. W. Wood, R.N. (ret[illegible] and the Hon. Treasurer, Mr. Gerald R. Paling.*—Ed.]

THE SURREY GLIDING CLUB.

The Surrey Club having got beyond their ground at Chilwor[illegible] Surrey, have been compelled to obtain a larger site, which has b[illegible] secured at Stocks Farm, Meonstoke, on the southern slope of [illegible] Winchester Hill. Here there is plenty of room for training [illegible] advanced work, and every week-end now sees both the Dagling [illegible] Prufling machines in flight.

Given the correct conditions several members of the Club [illegible] soon be soaring, and obtaining "C" certificates.

With the foundation of a year's experience to build on, the C[illegible] is extending its organisation for the coming season. An advan[illegible] group has been formed to concentrate on progressive training and carry out any experimental work in connection with the Cl[illegible] operations.

Saturday afternoon meetings were resumed on Feb. 14, when [illegible] advanced group tested a method of car-launching with great succ[illegible] The results were put into practice next day, when all members ab[illegible] the "A" stage were sent off in this manner. We have become q[illegible] mechanised now, since the return haulage has, by the grace of [illegible] enthusiasts, been done by cars for some time now. The auto-launch still further reduces the ground crew's work.

The new ground has proved a boon to our pupils and several "A" have been taken there—all by ab initio members! In fact, train[illegible] is so well and progressively organised that the gaining of an "A" ticket is now a regular event.

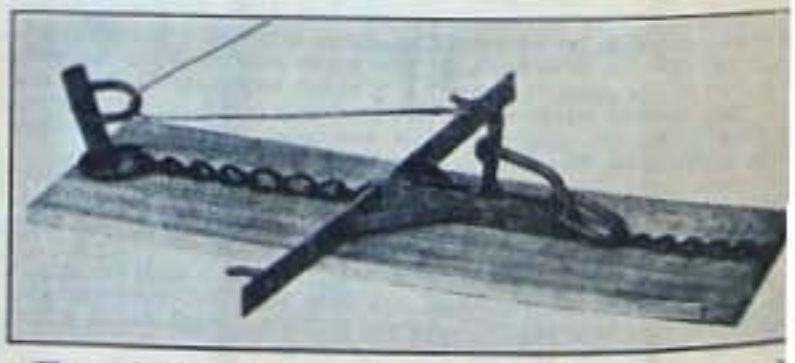
We apologise most sincerely to those Southdown enthusiasts [illegible] their disappointing visit to Chilworth, but if they can ever spare [illegible] time to visit Meonstoke we can promise them a hearty welcome, [illegible] a good day's sport.

We note with interest from the columns of THE SAILPLANE, t[illegible] the Southampton Gliding Club will be near neighbours, and we l[illegible] to make their acquaintance. Incidentally, as this Club's initials [illegible] the same as ours—S.O.C.—we trust they will use a contrasting C[illegible] colour and badge so that we may recognise each others' machines [illegible] they soar around the district. For their information, our badge [illegible] the letter S, or, imposed on a lozange *sanguine*.

To intending visitors, every welcome. Luncheons and teas, [illegible] recommended by all our members, are served at the gliding grou[illegible]

As the Club year ends April 1, 1931, those members now join[illegible] the Club continue membership until April 1, 1932, and at [illegible] moment there are several vacancies for membership, which is £2 [illegible] with £1 1s. entry fee.

Hon. Sec.: G. H. Taylor, Woodbridge Hill Gardens, Guildford.



The quick-release used by the North Staffs. Club and made by Eastall Mills. The curved prongs on the arms are for winding up the releasing lanyard.

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